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東濃地科学センター 【研究調整グループ】

限定資料

ウラン需給予測に関する調査

(動力炉・核燃料開発事業団 契約業務報告書)

1996年8月

三菱商事株式会社

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ウラン需給予測に関する調査



~~限定資料~~

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ウラン需給に関する調査

三菱商事(株)原子燃料部

要 旨

本調査はScience Applications International Corporation (SAIC) 社とUranium Exchange (Ux) 社により開発され、U-PRICE Modelとして知られる最新の需給解析手法を用い、将来のウラン価格、ウラン生産量、軍事用ウラン(HEU)の民生転用等について具体的な需給予測の方法論を知り、且つ実際の予測を行うことを目的とするもので、以下の内容を含むものである。

- 1) 将来予測を行うために用いる方法論の解説（予測年は最低限2010年以降とする）
- 2) 市場条件(環境)の変化がどのように価格に反映されるかの解説
- 3) HEUを盛り込んだ市場動向及び需給予測調査

本報告書は三菱商事(株)が動力炉・核燃料開発事業団の委託により実施した業務の成果である。

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1. U-PRICE予測モデルの概要

U-PRICEは2010年までのウラン価格、生産量、在庫量を年毎に予測するダイナミック・モデルである。各予測は既存並びに新規鉱山のコスト回収見通しからも求められるし、また計量経済学上の公式に基づいて実行することも可能である。U-PRICEは予測における不確実な各要素の全体に与える影響を理解するためのシナリオ分析のためにも利用できる。

U-PRICE予測モデルの概要につき、そのサポートの体制と内容、データベースと出力、システム機能、分析機能につき以下に取りまとめる。

サポート

U-PRICEは Science Applications International Corporation (SAIC)、The Uranium Exchange Company (UxC)両社がサポートします。SAICはコンピュータ・アプリケーションおよびモデル作成では指導的地位を占める会社で、システムおよび分析面でサポートを提供し、他方UxCはその関連会社The Uranium Exchange Company とともに指導的地位を占めるウラン市場コンサルタントであり分析およびデータ面でサポートを提供します。SAIC、UxC両社は協力してU-PRICE とそのアプリケーションのため比類ないサポートを提供することができます。

機 能

内 容

- | | |
|----------------------|--|
| * 研修 | U-PRICEの利用と特徴的機能に関する研修を現地で、あるいはSAICまたはUxCのオフィスで提供することができます。 |
| * グレードアップ | SAIC、UxC両社ともウラン市場の展開をつねに追跡しています。米ロ間停止協定の修正における均衡販売のコンセプトのように大きな展開が生じた場合、このような展開はU-PRICEに取り入れられます。 |
| * アプリケーション
のカスタム化 | U-PRICEはワークシートを基礎としているため、やコンピュータ・マクロはいつでもすぐアクセスが可能です。また貴社のご要請を満たすためそのレポートを含めるなど、新機能追加のためU-PRICEをいつでも修正することができます。 |
| * データ・サポート | UxC/Uxはウランの需給、在庫、生産能力、生産コスト、その他ウラン市場・業界の諸側面に関する総合的なデータベースを維持しています。このデータベースはU-PRICE顧客のサポートのために利用が可能です。 |
| * ユーザーからの
フィードバック | ユーザーからの要求に応え、クイックチェンジや内挿生産高 (Interpolated Production) など、新機能が追加されました。1996年4月初めからはウインドウズ95バージョンも利用可能になるでしょう。 |

データベースと出力

U-PRICEは、与えられるデータの粗密に関わらず成功裡に動作するという点で、そのデータ要求は柔軟です。U-PRICEはこのようにして、生産能力、コスト、契約コミットメントなど貴社のウラン・プロジェクトに関する詳細データを利用することも、或いはこれらよりはるかに詳細度の劣るデータでも動作することができます。同様に、U-PRICEからの出力はユーザーの要求に応じて詳細化することも簡略化することも可能です。

機 能

内 容

- * 生産者データベース U-PRICEは生産者データベースを組み込んでおり、このデータベースでは操業開始年度、操業停止年度、生産能力、契約コミットメント、最低販売価格など、個々のウラン・プロジェクトの諸データが利用できます。
- * 履歴データ U-PRICEは履歴データベースを組み込んでおり、このデータベースにはウランの生産高、要求量、在庫レベル、価格などが含まれます。これらデータは、ユーザーが価格と生産の予測を行うための歴史的観点を提供するに止まらず、U-PRICEの計量経済学的部分の等式を作成するのにも用いられます。
- * 生産者の状態 U-PRICEは各事例の実行ごとに、稼働中と予想されるすべてのプロジェクトのリストとウラン生産量を年次ベースで出力します。このような情報は、どの生産者が存続可能か判断したい電力会社にとって、また自分の競争力がどれ位の順位にあるかを判断したい生産者にとって有益です。
- * レポート U-PRICEの標準レポートには、スポットおよび長期ウラン価格、ウラン生産量、ウラン所要量（テイル濃度により調整）、HEU起源のウラン供給量の利用可能性などについての予測が含まれます。どのシナリオについても、米国／ロシアの均衡販売がどれ位かを示した別個のレポートが利用できます。
- * グラフ 組み込まれた多くのグラフの他、U-PRICEではユーザーがグラフを新規に作成することができます。作成されたすべてのグラフを追跡するため、特別のメニュー選択肢が設けられています。

システム機能

U-PRICEは使い易さ、アクセスし易さを考え、EXCEL for Windows を基礎としてプログラミングされています。この他U-PRICEにはカスタムメニューや広範なヘルプファイルも含まれており、これによりU-PRICEの使用はいっそう効率と生産性が高まっています。またU-PRICEはEXCEL を基礎としているため、APPLE Macintosh コンピュータ上で走るよう修正することも容易です。

機 能	内 容
*メニュー・ドリブン方式	顧客がデザインしたメニューにより、ユーザーはスプレッドシートの中、或いはスプレッドシート相互の間ですばやく効率的に移動することができます。
*モデルによって切り換えられるテンプレート	予測する年数（1～16年）、モデルのソリューション・モード、最適テイル濃度を使用するかどうかなど、ユーザーは実行の主要パラメータを1つのロケーションから指定することができます。
*事例管理	ユーザーは特定の諸事例を、これに関連する一群の諸前提とともに保存し、事例を再作成することができます。
*ヘルプファイル	U-PRICEには広範にわたる「コンテキスト・センシティブ」なヘルプファイルが含まれており、ユーザーはこれにより現在のタスク実行のための正確な情報にアクセスすることができます。更にこれらヘルプファイルは相互参照されており、従ってユーザーは特定のテーマに関する追加情報を容易に探し出すことができます。
*文書化	モデルで使用されているすべての等式やマクロなど、U-PRICEに関するすべての文書が提供されます。
*クイックチェンジ	ユーザーは最も頻繁に使用される諸前提をすばやく変更し、感度分析を容易に実行することができます。

分析機能

U-PRICEはウラン市場のあらゆる主要側面を組み込んでいます。このためユーザーは、貿易制限の影響、HEU起源のウラン供給の導入、為替レートや濃縮価格の変動、在庫政策の展開、個々の鉱山の操業開始と閉鎖、リサイクル、原子炉の所要量の変動など、様々な市場条件をシミュレートすることができ、これにより多くの「もし．．． だったら」の仮定シナリオを評価することができます。

機 能	内 容
* テイル濃度の最適化	ユーザーの入力した濃縮価格と、利用可能なテイル濃度のレンジ、およびモデルの計算したウラン価格にもとづいて、最適な濃縮テイル濃度が計算されます。テイル濃度の変化に従ってウラン所要量が調整されます。
* ウラン・プロジェクトのスケジュール作成	ユーザーは任意のウラン・プロジェクトを特定年度に閉鎖したり、新プロジェクトの導入を遅らせ或いは早めたりして、価格に対するその影響を判断することができます。
* 高濃縮ウラン（HEU）	HEU濃度、ブレンドストック濃度、算出した最適テイル濃度、HEUの転換キャパシティと引き渡しスケジュール、HEU起源のウランの売買に対する制約条件などにもとづいて、利用可能なウラン供給が計算されます。ユーザーはHEU供給量の導入テンポを変化させることにより、市場への影響を評価することができます。
* 貿易制限	ユーラトムの輸入割当て、商務省の停止協定とその修正など、現行のすべての貿易制限とその諸要素がモデルによってシミュレートされます。停止協定に関しては、ユーザーはモデルによりグランドファーザー条項適用コミットメント、濃縮バイパス、価格連動型の輸入割当て、均衡販売などの影響を評価することができます。また、価格連動型の輸入割当ての基礎とされるDOCの決定による価格も、モデルによって予測することができます。
* 在庫の取り崩し	モデルには、在庫の取り崩しや、電力会社の希望する在庫レベルを計算するモードがあります。また別のモードでは、ユーザーは在庫取り崩しを調整してその価格への影響を判定することができます。
* 為替レート	モデルでは、仮定された為替レート変動にもとづき、個々のプロジェクトに許される最低限の売買価格の調整が行われます。

2. U-PRICE予測モデルの方法論の解説と市場条件（環境）の変化がどのように価格に反映されるかの解説

2.1. 概説

U-PRICE モデルは、供給フローを制約する貿易制限やその他制限と並んで、現在および今後見込まれるすべてのウラン供給ソースを考慮に入れて作られている。これらの供給ソースの中には、現行の契約コミットメント、既存および計画段階にある西側のプロジェクトからのコミットされていない生産、CIS 諸国とその他東欧からの供給、電力会社とサプライヤ両方の在庫の取り崩し、高濃縮ウランおよびその他政府在庫からの供給、プルトニウムとウランのリサイクルが含まれる。

モデルの操作によって世界ベースで価格を予測することができるが、現在のところ価格は西側世界ベースで設定されている。このような構成となったのは、CIS からの供給品に対して課されている貿易制限や、CIS 供給品のコスト／価格データが現時点では十分定義されていないという事実の結果である。このような背景の上で、モデルの基本的前提は、想定される西側の所要量レベル、価格依存的ではないと想定した供給コンポーネントから推定される将来の供給レベル、価格依存的なウラン・プロジェクトからのコミットされていない供給レベルを所与として、価格を出すことにある。

図2.1 に示した通り、このプロセスの第1のステップは、まだコミットされていない西側の生産以外の供給ソースが所要量を満たすことにどこまで寄与できるかを特定することである。

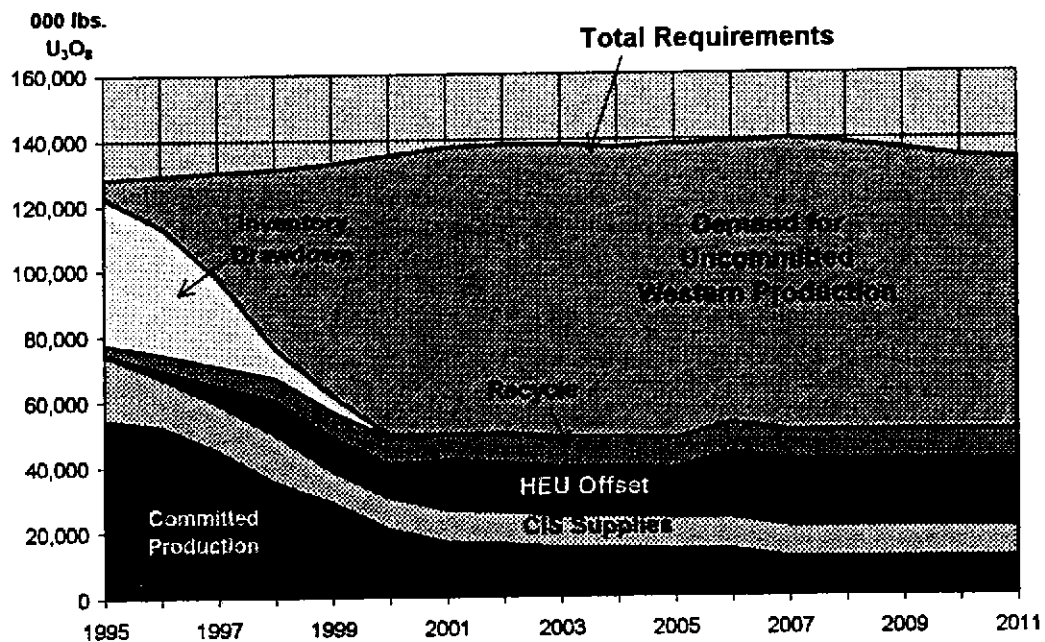


図2.1 U-PRICE モデルに取り入れられた需要と供給の構成要素

いったん上記のその他供給ソースが定量化されれば、モデルはコミットされていない西側の生産に対する需要、つまり市場需要を、原子炉の所要量と供給コンポーネント合計の差として導き出す。

次に、図2.2 に示すような残りの市場需要は、コミットされていない生産によって充足される。その価格は、この需要を満たすのに必要な供給の最後の増分の売り値に等しい。注意すべきは、この最後の生産の増分は必ずしも、市場で最高のコストの生産者から出てくるとは限らないことである。この生産者の生産が、すでに確定価格の長期契約の下でコミットメントを持っている場合があるからである。



図2.2 コミットされていない西側の生産に対する市場需要

ここに示した例では市場需要が増大し、価格が上昇することを示しているが、もし他の供給ソースで原子炉所要量の大部分が満たされるならば、市場需要は極く低くなることもあり得る。このケースでも、このような未約定需要を満たす低価格の供給が十分にあれば、価格は極めて低くなるだろう。これとほぼ同じことが1990年代初めに起きている。この時は、大量の在庫取り崩し（電力会社の在庫売りとローンを含む）、CIS から西側への輸出、そして確定価格での既存の契約コミットメントを組み合わせた結果、西側の原子炉所要量の殆ど全量を満たすに十分であり、コミットされていない西側生産に対する未約定需要は殆ど残らなかった。このようにこのモデルは、入力された諸前提にもとづいて、極く低い価格から極く高い価格まで市場状況をシミュレートできる点で、かなりしっかりしたものである。

2.2. 東側諸国の供給と需要

現在のモデルの使用方法に合わせて、東側世界（旧東側ブロック）の所要量は東側世界の供給によって――現在のロシアの在庫を含む、主としてCIS 諸国からの供給によって――満たされることを前提にしている。東側のこのような所要量を超える過剰供給は、西側への輸出に回すことができる。（これら輸出のソースはCIS 諸国と考えられている。）西側に輸出されるCIS からの供給量は、現在、およびモデルによってシミュレートされる今後予想される貿易制限によって制約を受ける。またCIS からの供給品は西側に、西側生産者の製品より低い価格で販売されるものと想定されており、従って輸出可能な（かつ輸入が許される）量がどれ程あっても、すべて売り尽くされることになる。

このアプローチは現在の市場の動き方に合致している。東側の需要はすべて東側の供給で充足され、CIS から西側への輸出は一定の貿易制限に直面している。貿易制限が将来緩和され、もっと多くのCIS 供給品が西側に販売されることもあり得るが、他方、CIS での生産が削減されるにつれ、西側がCIS 供給品を入手する可能性が低くなることもあり得る。このように、CIS 供給品の供給とこれに対する需要の両方に対する制約を考慮に入れる必要がある。これらの進展は不確実なため、価格への影響を決定するため、モデルでは貿易制限やCIS 供給品の西側での入手可能性を可変としている。

2.3. CIS諸国からの供給に対する貿易制限

モデルは、CIS 供給品に対する現在の貿易制限すべてをシミュレートしている。この制限としては、その利用に対するユーラトムの制限や米国の停止協定の下での様々な輸入割当て、契約に対するグランドファザー条項の適用、カザフスタンへの価格連動型輸入割当て、ウズベキスタンへの生産量連動型輸入割当て、そしてロシアに対する均衡販売条項などがある。価格連動型の輸入割当ては、検討した特定のシナリオについてモデルが予想する将来の価格レベルにもとづいて「発動」される。均衡販売の場合、価格としては、ロシア産ウランが米国で新規生産された同量のウランと一緒に販売される場合の価格を想定している（下記注1）。このような同量同志の組み合わせは、米国の各プロジェクトにとって新たな複合価格（想定されたロシアの価格と米国のプロジェクトの売り値との平均）を創り出す。次いでこれらプロジェクトはその複合価格の順にランクが付けられ、最低価格のプロジェクトが真先に、入手可能なロシアからの供給品と同量ずつ組み合わされる。その量の限度は、ロシア修正協定で認められた輸入割当て量までである。その後これらプロジェクトは、モデルが計算した市場需要を満たすため、他者との競争に入る。

（注1）或いは、この価格は将来の価格レベルの或る関数ともなり得る。ロシアが均衡販売のためにオファーする価格は、市場状況の変化とともに変動するだろうからである。

2.4. 西側世界の生産

予測を行うためU-PRICE モデルは、現在および今後予想される西側のウラン・プロジェクトすべてを考慮に入れる。各プロジェクトについて、現在の埋蔵量のレベル、最大生産能力、現行の確定価格契約コミットメント、最低販売価格、最も早い操業開始年とそのプロファイル（プロジェクトがまだ生産を始めていない場合）が入力される。これら個別のプロジェクトの生産量のしきい値毎に、それぞれ異なった生産コスト／最低販売価格があり得ることを考え、プロジェクトは複数の構成部分に細分化することができる。

これら入力項目にもとづいて、モデルは各プロジェクトが売りに出せるコミットされていない生産量を導き出す。フロア価格のない市場価格連動型契約の下での契約コミットメントは、この目的のためにはまだコミットメントがないものと見做される。もし価格がそのようなプロジェクトの生産コスト／最低販売価格以下になると、これら契約は結果的に生産をもたらさないだろうからである。そうしておかないと、モデルは膨らんだ生産予想を出せることになる。プロジェクトは自分の確定価格コミットメントのために生産すると想定されているからである。新規プロジェクトは、最初の操業開始日（モデルに入力された）または価格がプロジェクトの生産コスト／最低販売価格以上に上昇する時のうち、いずれか遅い時期に軌道に乗る。

2.5. 需要

ウラン所要量は、米国、西欧、極東その他の地域ベースでモデルに入力される。テイル濃度、濃縮度、稼働率などの原子炉パラメータもまた地域ベースで入力される。これらパラメータは所要量レベルを変えるために修正が可能である。更に、このオプションが選択される場合には、モデルは、ウランの濃縮・転換の想定価格および予想価格にもとづいて将来のテイル濃度を計算することもできる。

コミットされていない西側の生産以外の所要量のレベルと供給コンポーネントの仮定にもとづいて、モデルは西側の生産に対する市場需要を導き出す。コミットされていない生産量を出すのを導いた場合と同様、市場需要の計算では、確定価格のコミットメントだけが所要量から控除される。

2.6. 在庫の利用

モデルでは、表2.1 に述べられた通り、いくつかの異なったタイプの在庫利用が取り扱われる。

表2.1 U-PRICEモデルにおける在庫利用の処理

在庫の用途	説明
電力会社の在庫利用	<p>モデルには地域ベースで、予想される電力会社の在庫利用が入力される。この在庫利用は、電力会社ごとの現実と希望の在庫保有の比較、および計画された電力会社や地域の在庫の取り崩しに関する情報（もしも入手できる場合）にもとづいて推定される。</p>
サプライヤの在庫利用	<p>サプライヤの在庫利用は、全世界（西側世界）ベースで入力される。これによりモデルは、既存或いは計画中の施設の最大生産能力を超えたサプライヤ引き渡しのコミットメントを考慮に入れることが可能となる。</p>
濃縮ウラン	<p>HEUの濃度およびブレンドストックの濃度の他、LEUに転換されるHEUのスケジュールにもとづいて、モデルはHEUに含まれているウランを計算する。このウラン販売に対する既存或いは今後課される可能性のある制約を配慮して、更に多くの制約条件を入力することもできる。このような販売が制限される限度まで、モデルは、将来制限が緩和される時に販売できる在庫を構築する。</p>
リサイクル	<p>プルトニウムとウランのリサイクルを考慮に入れるため、ユーザーはリサイクルされる製品のウラン換算による利用量の予想スケジュールを入力する。</p>

2.7. 価格の計算

U-PRICE モデルは、ウランの長期価格とスポット価格を予測する。両者間の差は、モデルに入力されたリスク・プレミアムによって決定される。長期価格は、電力会社がその価格リスクを最小限にしようとして優勢なスポット価格以上の価格で契約を結ぶことを考慮に入れて計算される。また、カザフスタンに対する価格連動式の輸入割当てを発動するために用いられる米国商務省（DOC）の価格を導くためにも、長期価格、スポット価格両方を計算することが必要である。DOC価格は、米国におけるスポット価格と長期価格の加重平均である。

3. HEUの市場への導入とそのウラン需給への影響

3.1. USEC民営化法の成立

1996年4月26日、1996会計年度予算法案は米国議会を通過し、大統領により署名されたことにより成立した。USECの民営化に関する条項は、同予算法案の第3章（Title III）として付随していたため、併せて成立したこととなる。

USECの民営化法は、USECの民営化を推進するとの第一義的な目的を持つ他、非常に重要な側面として「政府のウラン」とでも呼ぶべきものの米国市場への導入に関わる枠組みを規定している。上記の「政府のウラン」の市場への放出はUSECを通じてなされるため、SWU市場への影響は少ないと予想される一方で、転換市場への影響は比較的大きいとみられている。議論が多かったウラン精鉱市場への影響については、同法律がロシアとのHEU取引に起因するフィード部分並びにDOEからUSECに移転される天然UF₆とHEUの米国市場への最大販売量を規定していることから、一定の歯止めがかけられたとみられている。この米国市場での販売可能量を限定するという方針と具体的な方策は、昨年USECの民営化法案がドラフトされた頃より変更されておらず、つまり、クリントン政権より以前から提案されていた、ロシア産HEUのフィード部分の米国での販売に関して、貿易法（停止協定によるマッチング販売の必要性）の適用を免除させるとの文言は含まれなかった。

USEC民営化法によると、ロシアはHEU のフィード部分について USEC から即座に返却を要請する権利を有しており（従って「USECがフィード部分を保有し、それが販売されたか、オーバーフィードとして使用されるか、あるいは20年が経過するかした場合に、ロシアにフィード相当金額を支払う」と規定している現行の USEC/Minatom 間実施契約は改訂されなければならない）、ロシアは同法において規定されている条件と一致した方法で、そのフィード部分を販売することができる。ロシアがそのフィード部分の引取を望まない場合には、USEC は当該物質（いかなる貿易法上の解釈においてもロシア産とみなされる）をオークションにかけるよう要請されており、この収益金はロシアに支払われることとされている。

米国のコンサルタント会社であるUx社は、同法に基づくロシア並びに米国の政府ウランの2005年までの米国への最大供給可能量（米国産ウランとのマッチング可能量を含む）の年間スケジュールを次のように取り纏めている。

表3.1 USEC民営化法により規定された米国市場への最大供給可能量

ソース(百万ポンド U_3O_8)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<u>ロシア産 HEU</u>										
マッチング販売	1.9	2.7	3.6	4.0	4.2	4.0	4.9	4.3	0.0	0.0
直接販売	0.0	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0
DOE を通じて	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
<u>米国HEU/天然 UF_6</u>	0.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
計	1.9	2.7	8.6	11.0	13.2	15.0	20.9	22.3	20.0	22.0

しかしながら、上記の数量は最大値であり、実際に市場（米国並びに米国外）で入手可能な数量は、様々な要因（ロシア産HEUの希釈／年間引渡可能量、マッチング可能な米国産ウランの数量など）と将来の展開に依存していることに注意する必要がある。

尚、同法はロシア産ウラン並びにDOE から USEC に移転されるウランの米国外への輸出に関しては、何ら制約を設けていない。

同法は、ウランの引渡制限の管理と履行に関する権限を商務省長官に与えているが、その具体的な方策については明記していない。また、同法は米国の執行機関（U. S. Executive Agent : 現行USEC）の活動をモニターするよう大統領に要求しており、ロシア産のLEU の引渡が米国のウラン、転換、濃縮の各産業に与える影響につき年次レポートを提出するよう要請している。

3.2. HEUの市場価格に与える影響

上記の様に、USECの民営化法が成立したことで、ロシア産HEUの市場への導入スケジュールの青写真が示されたが、その実際の履行にはかなり大きな不確実性が存在する。Ux社とも関係を持つ米国のコンサルタント会社であるiNi（International Nuclear, INC.）社は、ロシアと米国のHEUによって総需要の最高20%が満たされるとの前提に基づきHEUの導入による将来の市場価格への影響を下図のように予測している。

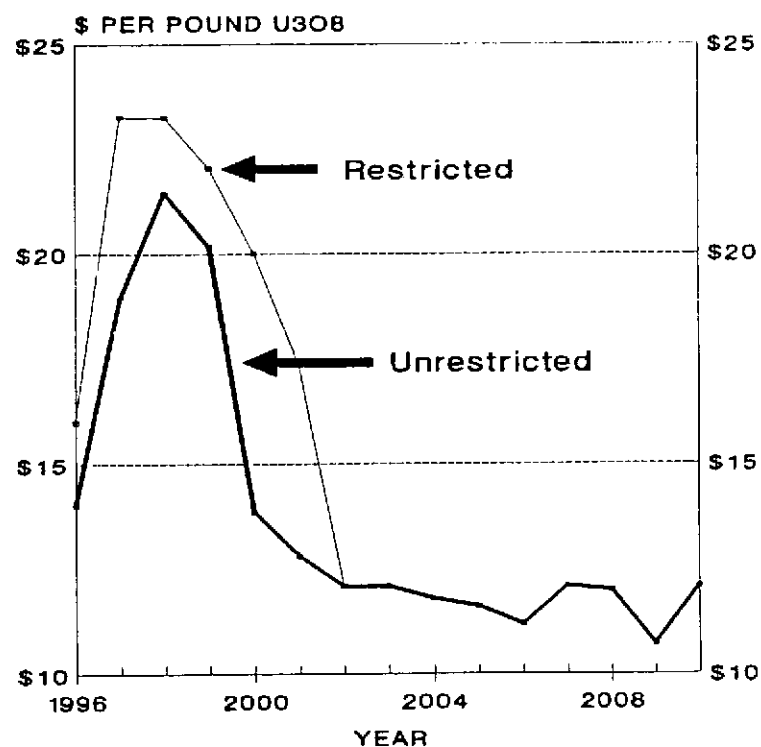


図3.1 iNi社によるウラン価格予測

繰り返し述べる様に、米露間HEU協定の履行には、ロシア側の希釈能力をはじめとする多くの不確実性が存在し、また反ダンピング条項がその問題を複雑化している。一方、米国のHEUは政治的道具に使用される可能性が強く、HEUが市場に導入されない場合、ウラン需給間に大きなギャップが生じ、ウラン価格は一時的に \$30を超えるレベルにまで上昇することが予測されている。以下にiNi社による分析結果を示す。

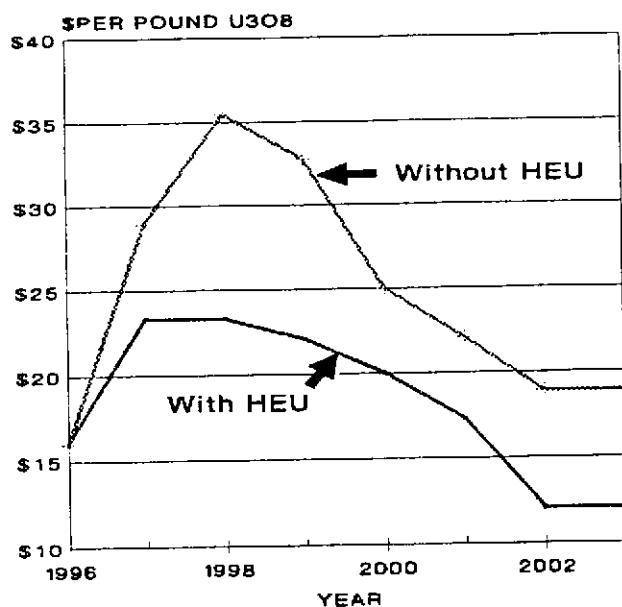


図3.2 iNi社によるウラン価格予測

(制限市場、HEUの影響)

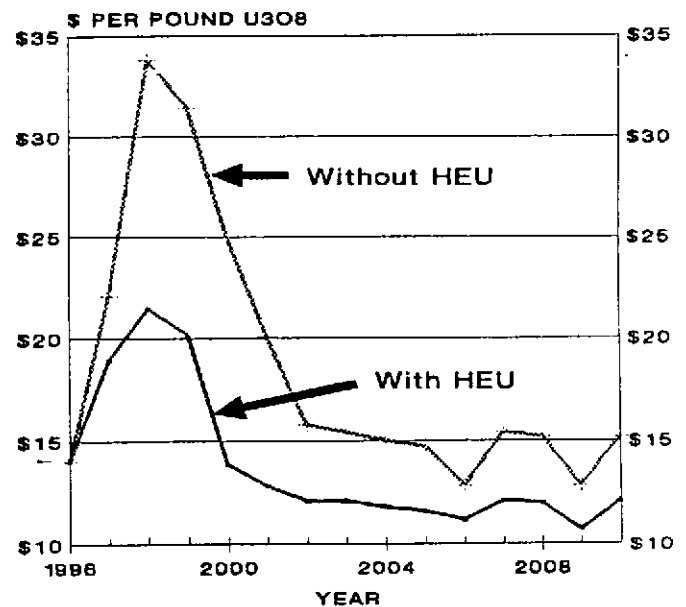


図3.3 iNi社によるウラン価格予測

(未制限市場、HEUの影響)

U-PRICE予測モデルの標準的なデータベースには供給ソースとしてのHEUの寄与について一定の設定がなされており、その前提とその他の多くの要因に基づく価格予想がなされている。以下にU-PRICEモデルにおける供給要素のチャートと価格チャートを示す。これらはU-PRICEモデルにおける予測の一例であり、HEUの供給量の想定を変更することにより、その全体に占める影響の大きさを見ることができる。

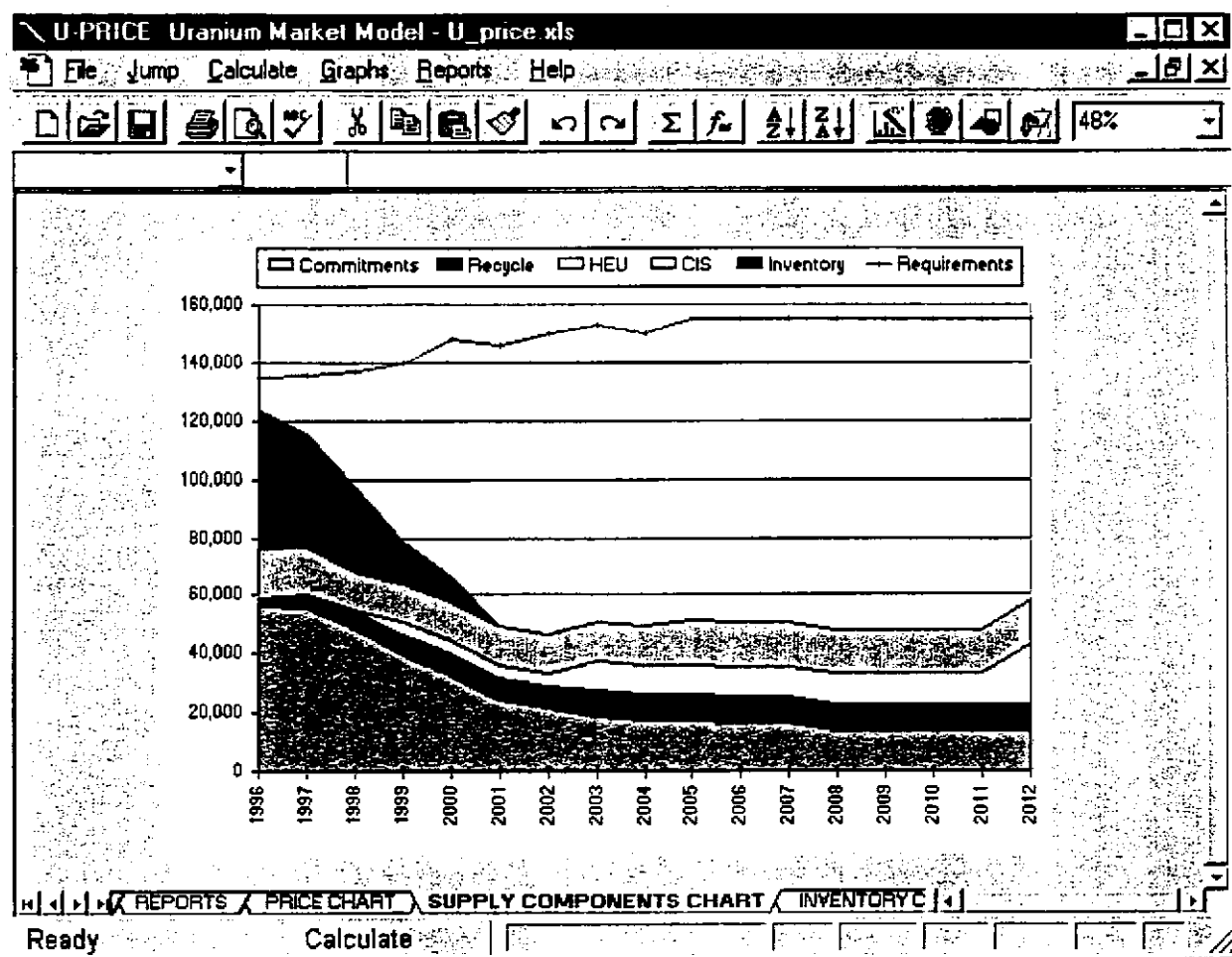


図3.4 U-PRICEモデルの供給要素チャート

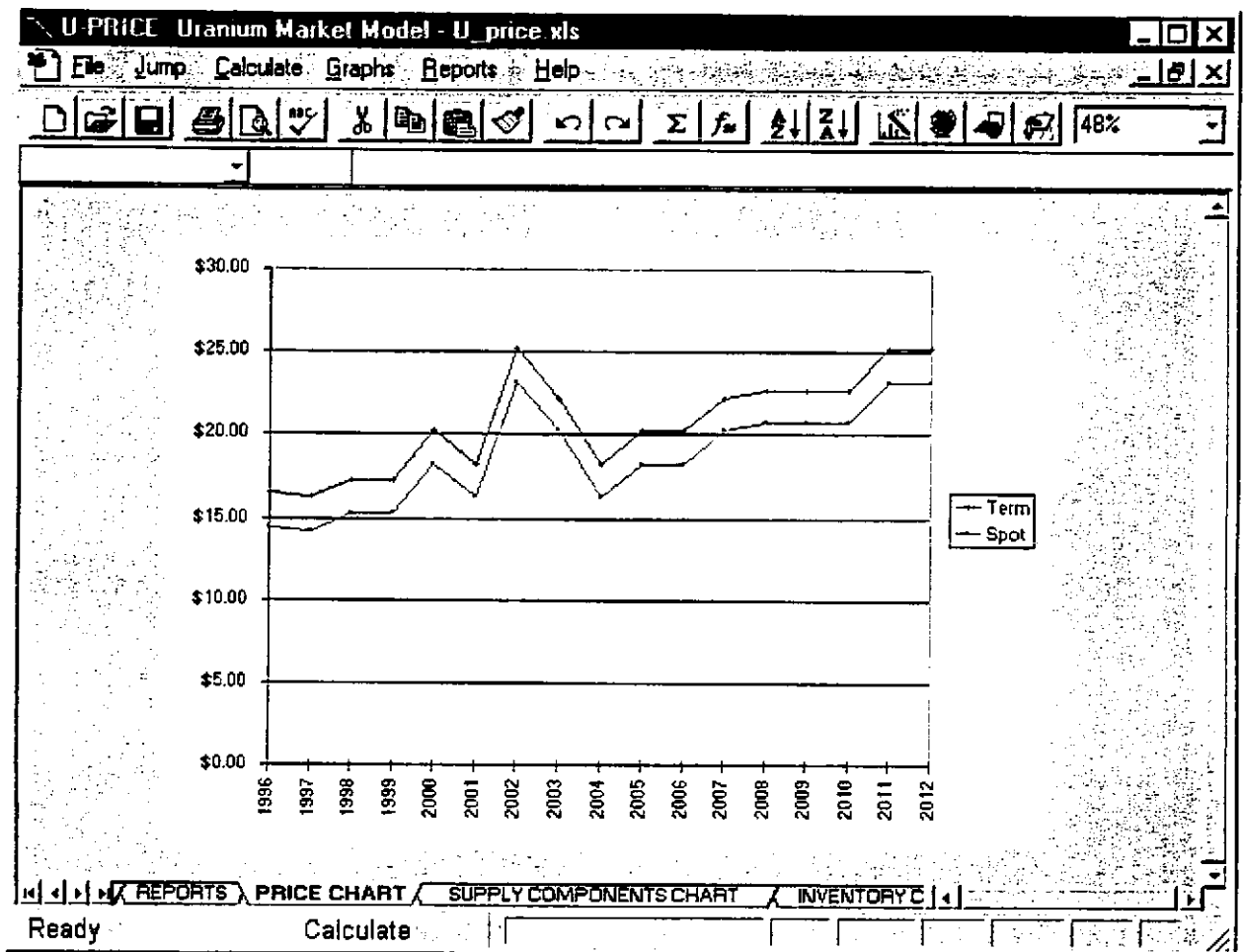
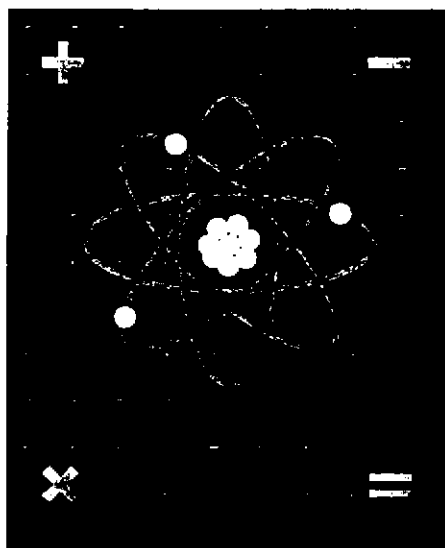


図3.5 U-PRICEモデルの価格チャート

付属書 1 . U-PRICE予測モデルの英文パンフレット



U-PRICE **Forecasting Model**

U-PRICE is a dynamic forecasting model that gives annual forecasts of uranium price, production, and inventories through 2010. Forecasts can be driven either from a cost-recovery perspective on new or existing supplies or from econometric equations. U-PRICE is used for scenario analysis to understand the impact of uncertainty on forecast values.

SAIC and The Ux Consulting Co. have developed and jointly support U-PRICE. SAIC specializes in quantitative analysis, modeling and computer applications in the nuclear and energy fields. Ux Consulting along with its affiliate The Uranium Exchange Company specialize in nuclear fuel consulting, price forecasting, and information services.

We would be pleased to discuss the features and advantages of the U-PRICE model with you. Please contact Jeff Combs of Ux Consulting at 770-640-8526 or Russell deCastongrene of SAIC at 423-481-2361.

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U-PRICE

Support

U-PRICE is supported by both Science Applications International Corporation (SAIC) and The Uranium Exchange Company (UxC). SAIC, a leading company in computer applications and modeling, provides system and analytic support, while UxC, along with its affiliate The Uranium Exchange Company, leading uranium market consultants, provides analytic and data support. Together, we are able to offer unparalleled support for U-PRICE and its applications.

Feature

- Training
- Upgrades
- Custom Applications
- Data Support
- User Feedback

Description

Training on the use and features of U-PRICE can be provided on site or at SAIC or UxC offices.

Both SAIC and UxC are constantly following developments in the uranium market. When major developments occur, such as the matched sales concept in the amendment to the Russian suspension agreement, these are incorporated in U-PRICE.

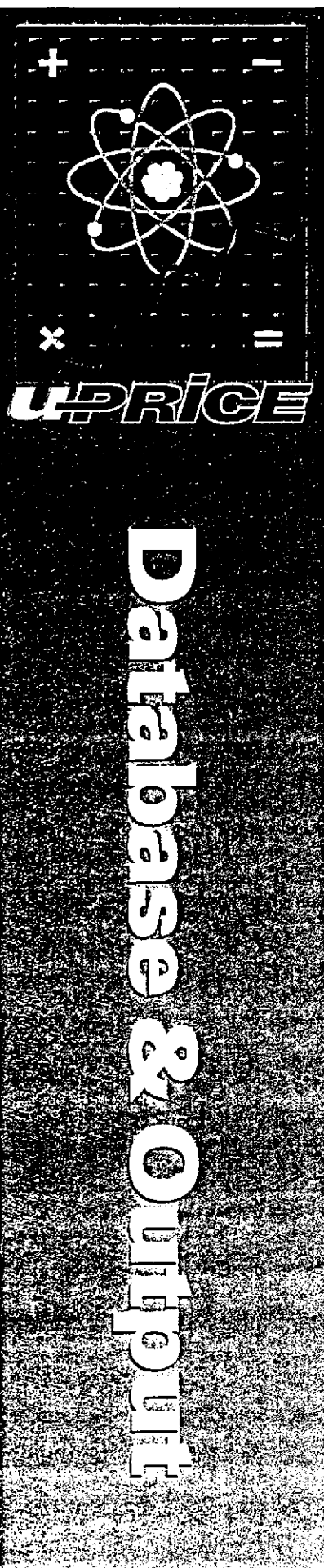
Because U-PRICE is worksheet based, the model's equations and computer macros are readily accessible, and U-PRICE can be readily modified to add new features, including custom reports to meet your company's requirements.

UxC/Ux maintains a comprehensive database of uranium supply demand, inventories, production capacity, production costs, and other aspects of the uranium market and industry. This database is available to support U-PRICE customers.

In response to user requests, new features such as Quick Change and Interpolated Production have been added. A Windows 95 version will be available at the beginning of April 1996.

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U-PRICE has a flexible data requirements in that it will run successfully with the data given to it, whether the data are sparse or detailed. In this manner, U-PRICE can make use of your detailed data on uranium projects, including production capacities, costs, and contract commitments, or can be run with much less detailed data. Similarly, the output from U-PRICE can be detailed or abbreviated, depending on the user's requirements.

Feature

Description

■ Producer Database

U-PRICE contains a producer database, which utilizes the following data on individual uranium projects: start-up year, shut-down year, production capacity, contract commitments, and minimum selling price.

■ Historical Data

U-PRICE contains historical data, including uranium production, requirements, inventory levels, and price. These data are used to develop the equations in the econometric section of U-PRICE, as well as to provide a historical perspective from which the user can view forecasts of price and production.

■ Producer Status

For each case run, U-PRICE provides a listing of all projects which are forecast to be in production and the amount of uranium being produced on an annual basis. Such information is useful for utilities who wish to determine which producers are viable, and for producers who wish to determine how they rank versus their competition.

■ Reports

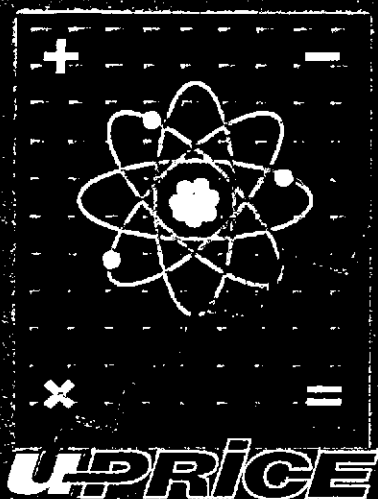
Standard reports for U-PRICE include projections of the spot and long-term uranium price, uranium production, uranium requirements (adjusted for tails assay), and availability of uranium supplies from HEU. A separate report is available to show the extent of U.S./Russian matching sales for any one scenario.

■ Graphs

In addition to the numerous built-in graphs, U-PRICE will walk the user through the process of graph creation. A special menu selection is provided to track all graphs that have been created.

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System Features

U-PRICE is programmed on EXCEL for Windows for ease of use and accessibility. Additionally it contains custom menus and extensive help files, making its use even more efficient and productive. And, since U-PRICE is based in EXCEL, it can also be easily modified to run on an APPLE Macintosh computer.

Feature

- Menu-Driven
- Model Switches Template
- Case Management
- Help File
- Documentation
- Quick Change

Description

Custom-designed menu allows the user to move within a spreadsheet or between spreadsheets quickly and efficiently.

Allows user to specify key parameters of a run from a single location, including number of years to be forecast (from 1 to 16), model solution mode, and whether to use optimal tails.

Allows user to save specific cases along with the associated set of assumptions to recreate this case.

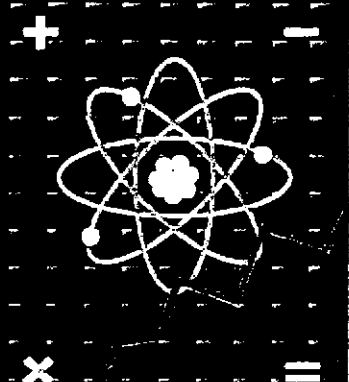
U-PRICE contains extensive, "context-sensitive" help files, which permits the user to access the exact information to perform the current task. Further, the help files are cross-referenced, so the user can easily seek out additional information on a particular subject.

Full documentation on U-PRICE is provided, including all equations and macros used in the model.

Allows the user to quickly change the most frequently used assumptions and easily perform sensitivity analysis.

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Analytic Features

U-PRICE incorporates all key aspects of the uranium market, allowing the user to simulate a variety of market conditions, including the impact of trade restrictions, the introduction of uranium supplies from HEU, changes in exchange rates and enrichment prices, evolving inventory policies, the start-up and shut-down of individual mines, recycle, and changes in reactor requirements, permitting the evaluation of a number of "what if" scenarios.

Feature

Description

■ Optimal Tails Assay

Calculates optimal enrichment tails assay based on user-inputted enrichment price and allowable tails assay range and uranium price calculated by model. Adjusts uranium demand according to changes in tails assays.

■ Uranium Project Scheduling

Allows user to shut down any uranium project in a specified year and delay or accelerate the introduction of a new project to determine the impact on price.

■ Highly Enriched Uranium (HEU)

Calculates uranium supplies available based on HEU assay, blendstock assay, calculated optimal tails assay, HEU conversion capacity and delivery schedules, and constraints on sale of uranium derived from HEU. User can assess impact on market by altering introduction rates of HEU supplies.

■ Trade Restrictions

Model simulates all current trade restrictions, and elements thereof, including Euratom quota, Commerce suspension agreements and amendments. Within the context of the suspension agreements, the model allows the user to assess the impact of grandfathered commitments, enrichment bypass, the price-tied quota, and matched sales. The model also forecasts the DOC-determined price on which the price-tied quotas are based.

■ Inventory Drawdown

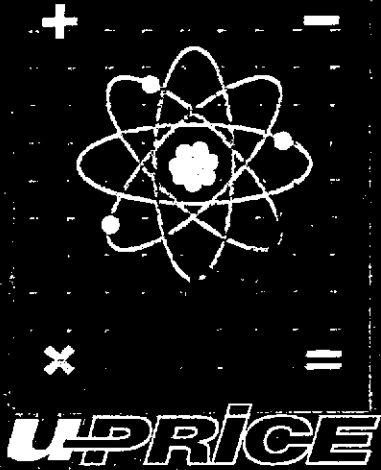
In one mode, the model calculates the drawdown of inventories and the levels of inventories desired by utilities. In another mode, the model allows user to adjust inventory drawdown to determine the impact on price.

■ Exchange Rates

Model adjusts minimum acceptable selling prices of individual projects based on assumed changes in exchange rates.

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U-PRICE Model Screen — Typical output report showing uranium production by project name (illustrative).

U-PRICE Uranium Market Model - U PRICE.XLW										
<div> <div>Next</div> <div>Previous</div> <div>Zoom</div> <div>Print...</div> <div>Setup...</div> <div>Margins</div> <div>Close</div> <div>Help</div> </div>										
URANIUM PRODUCTION BY PROJECT										
NAME	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Production	87040	83810	86670	93910	82400	79400	70990	65740	59248	64664
Australian Inventory	3000									
Kinross										
Kamsar										
Olympic 82				2300	1150	575				
Olympic Dam	4200	4200	4200	4200	4200	4200	4200	4200	4200	4200
Ranger	8800	8800	8800	8800	8800	8800	8800	8800	8800	8800
Ranger/Elk				4400	2200	1100				
Teutonic										
Bulgarian Inventory	2000	2000	2000	2000	2000					
Cigar Lake										3510
Cluff	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Key Lake	13000	13000	13000	13000	13000	13000	13000	3700	1000	
Kegonsa										
McArthur										13000
McClean/Midwest			1000	500	250					
Rabbit Lake	12000	12000	12000	12000	12000	12000	12000	12000	10000	
CNEC	2750	2750	2750	2750	2750	2750	2750	2750	2750	2750
Macaroni										
Parrine	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
Algonquin										
Arct										
Huffman	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
Palabora	6000	6000	6000	6000	2000	1500				
Estimote	1000	1000	1000	1000	500	250				
Alkama				2000	2000	2000	2000	2000	1544	
Christensen Ranch	80	80	80	80	80	80	80	80	80	40
Crow Butte	2960	3300	3500	3644	4000	4000	3000	3856	3914	2000
Gar Hill			1000	2000	2000	2000	500	1500	500	522
Green Mt				540	270	135				
Highland	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Huachuca	300	400	500	300	300	400	200	300	300	300
IMC	2000	2360	3040	2000	2000	2000	2000	2000	2000	2000
Kingsville	2000	2000	1500	1500	500	1500	500	1500	500	532
Pine Creek		270		540	1000	500	1000	500	1000	140
Purd			1200	1200	600	1200	600	1200	1200	1200
Smith Ranch			540	1000	540	2000	1000	2000	2000	2000
Umelec Inventory	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

Page 1

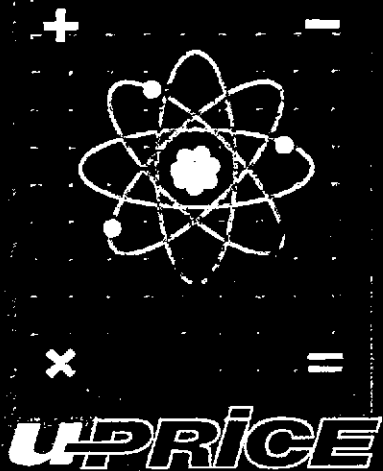
Preview Page 1 of 6

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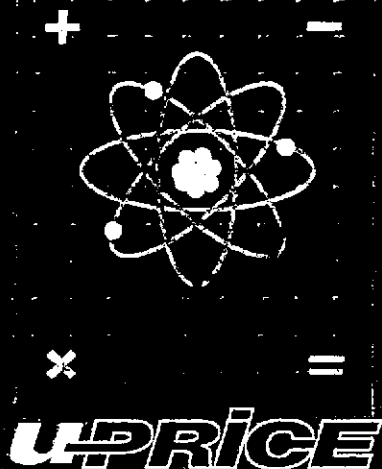
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Company





U-PRICE Model Screen — Choices for model control approaches, mode of solution, inventory data source, calculation of spot price, and units.

Uranium Market Model Switches	
Demand Units <input checked="" type="radio"/> Metric Tons Uranium <input type="radio"/> 1000 Lbs Uranium	1995 Starting Year for Model
Price Calculation <input checked="" type="radio"/> Fundamental <input type="radio"/> Econometric	Model Control <input checked="" type="checkbox"/> Use Optimal Tails <input type="checkbox"/> Use Enrichment Bypass <input checked="" type="checkbox"/> Use HEU Blending <input type="checkbox"/> Use USEC Overfeed <input checked="" type="checkbox"/> Use Russian Matching <input checked="" type="checkbox"/> Ignore Capacity Factors <input checked="" type="checkbox"/> Ignore Exchange Rates
Inventory Policy <input checked="" type="radio"/> User Entered Inventory Policy <input type="radio"/> Econometric Values	
Production Mode <input type="radio"/> Classic Price Cut-off <input checked="" type="radio"/> Interpolated Production	
Initializing Values \$11.50 U308 Price (\$) \$100 SWU Price (\$)	
	17 Years to Calculate 50% Percent Production During Price Downturn

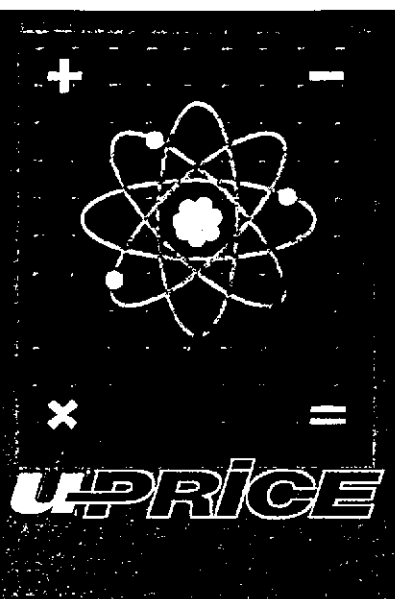


U-PRICE Model Screen — Main menu for U-PRICE showing choices for data management, model calculation, and output reporting.

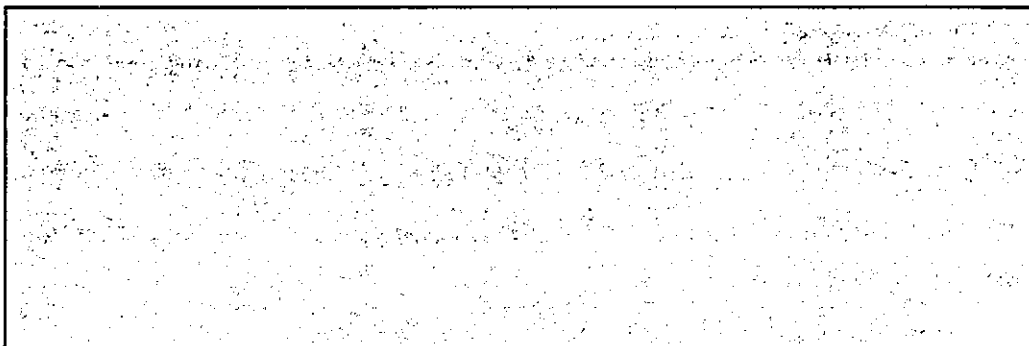
U-PRICE Uranium Market Model - U_PRICE.XLW										
File Jump Calculate Graphs Reports Help										
<div> Geneva 10 A B U Σ 100% </div>										
B37										
	A	B	C	D	E	F	G	H	I	
1										
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19										
<p>Welcome to the SAIC/UxC U-PRICE Model, Ver 1.3</p> <hr/> <p><i>Copyright 1995, SAIC/Ux Consulting, All Rights Reserved</i></p> <p> <input type="checkbox"/> Press to learn more about how to use the model <input type="checkbox"/> Press to read an overview of the model <input type="checkbox"/> Press to learn more about model worksheets </p> <p>To view Help from any Worksheet, Select Help from the Menu above. To view Help for any Menu Selection, highlight the Selection of choice and press F1</p>										
<div> MODEL OVERVIEW / KEY DATA PREVIEW / QUICK CHANGE / - DA </div>										
Ready Calculate INUM										

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International Corporation

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Consulting
Company **UX**



U-PRICE Model Screen — On-line help for each of the major worksheets, with direct links to other help topics available by clicking on the underlined item. U-PRICE help is context-sensitive, providing help information on the user's current activity.



U-PRICE FORECASTING MODEL HELP

File Edit Bookmark Options Help

Contents Search Back Print

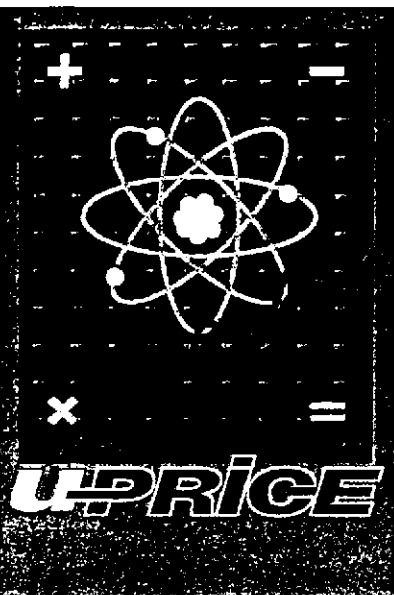
Model Files

The following worksheets are contained within the model. Click on any of them to obtain further information.

<u>DATA ENTRY</u>	<u>MARKET DATA</u>	Market Assumptions and Model Switches Data
<u>PROJECTS.DBF</u>		Uranium Projects Data
<u>DATA ENTRY</u>	<u>URANIUM DEMAND</u>	Uranium Demand Data
<u>DATA ENTRY</u>	<u>HISTORICAL DATA</u>	Historical Data
<u>CALCULATION</u>	<u>URANIUM PROJECTS</u>	Projects Calculations
<u>CALCULATION</u>	<u>URANIUM DEMAND</u>	Demand Calculations
<u>CALCULATION</u>	<u>URANIUM PRICE</u>	Price Calculations
<u>CALCULATION</u>	<u>URANIUM PRODUCTION</u>	Production Schedule
<u>CALCULATION</u>	<u>OPTIMAL TAILS</u>	Optimal Tails Calculations
<u>ECONOMETRIC</u>	<u>MODEL</u>	Econometric Model

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U-PRICE Model Screen — Typical worksheet demonstrating the “go-to” menu which allows the user to move quickly and directly to other sections of the worksheet. U-PRICE menus are context-sensitive, maximizing the efficient navigation of the model by the user.

U-PRICE Uranium Market Model - U_PRICE.XLW						
File Jump Calculate Graphs Reports Help						
<div> <div> Introduction Quick Changes Demand Calculation ... Price/Production Matrix Price Calculation Uranium Production Optimal Tails Calculator Market Assumptions ... Project Calculation ... </div> <div> Enrichment HEU Supplies Trade Restrictions Uranium Requirements Natural Uranium Inventories Economic/Exchange Rates Price, User-specified Model Switches </div> </div>						
	B	C	D	E	F	
	Default Case					
	1995	1996	1997	1998	1999	
1						
2	ENR					
3						
4	Tails	0.20	0.30	0.30	0.30	
5	Tails			0.20	0.20	
6	Enri			0.71	0.71	
7	SWU Price Projection			\$100	\$100	
8	Conversion Price Projection			\$6	\$6	
9						
10	ENRICHMENT BYPASS					
11				1998	1999	
12	European SWU Capacity (000 SWU)			12000	12000	
13	Sales to U.S. Utilities			1000	1000	
14	Unsold Capacity	1000	1000	1000	1000	
15	Unsold Percentage Available to U.S.	50%	50%	50%	50%	
16	Unsold Capacity Available to U.S.	500	500	500	500	
17						
18	U.S. SWU Demand (000 SWU)	10000	10000	10000	10000	
19	Commitments with USEC	8100	8100	8100	8100	
20	Commitments with European Enrichers	1000	1000	1000	1000	
<div> DATA ENTRY MARKET DATA / DATA_ENTRY_DEMAND / CALCU </div>						
Jump to Market Data - Enrichment						

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付属書 2. U-PRICE予測モデルの説明資料

PRICE Presentation to PNC

Introduction

- **Development and Uses of U-PRICE**
- **Analytical Framework**
- **U-PRICE Features**
- **Computer Operation of Model**
- **Model Demonstration**
- **Support for Model**

PRICE Presentation to PNC

Development and Uses of U-PRICE

- **Prototype model used in 1992 study for DOE**
- **Delivery of first model in 1994**
- **Model has been updated twice**
- **U-PRICE has been used in various studies**
 - *Analyze disposition of HEU inventories for DOE*
 - *EIS for Saskatchewan projects*
- **Historical performance of model**

PRICE Presentation to PNC

Analytical Framework

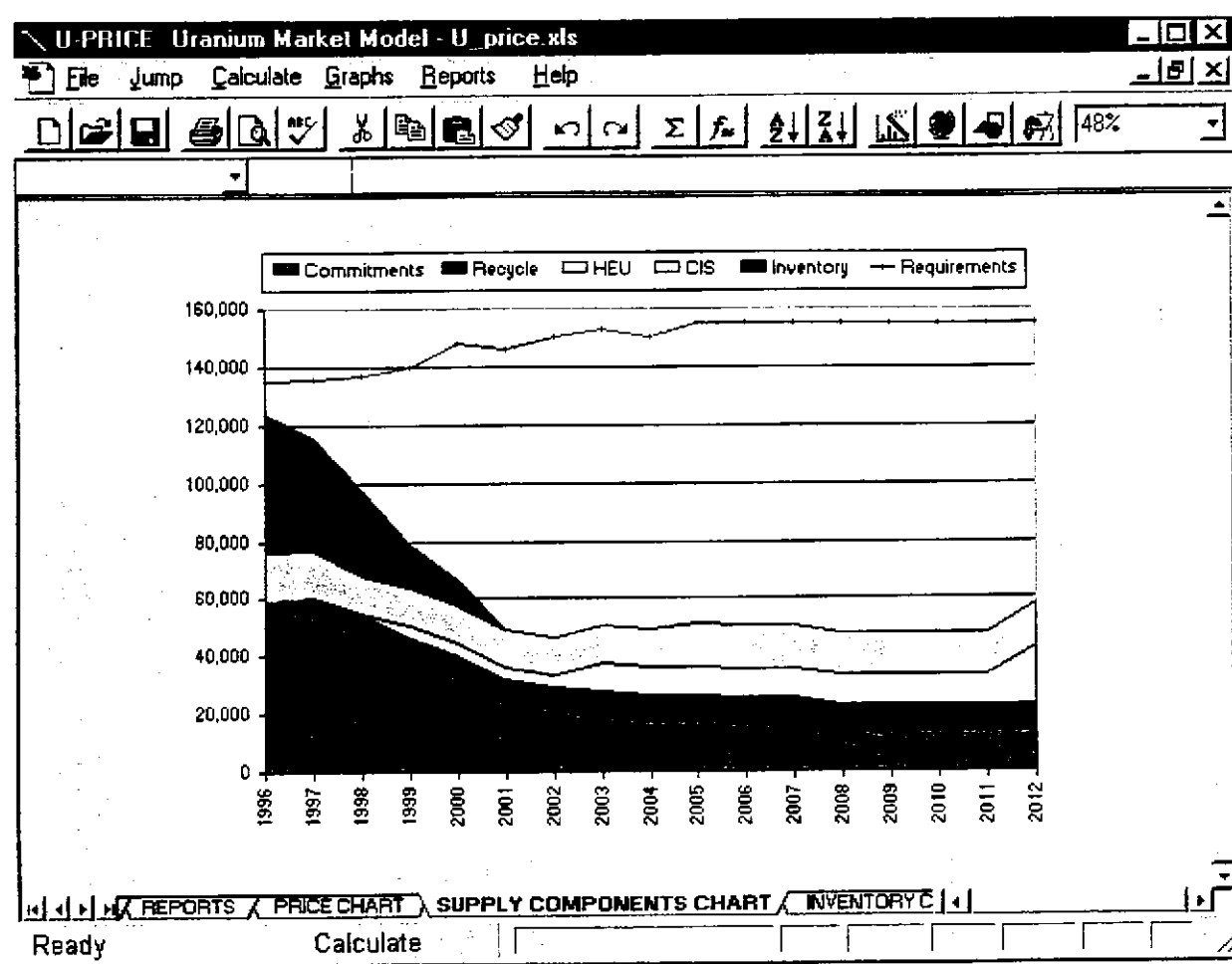
- Requirements input by user and adjusted for
 - *Optimal Tails*
 - *Capacity Factors*
- All sources of uranium supply are identified
 - *Production*
 - *Inventories*
 - *Recycled Material*
 - *CIS Supply/Import Restrictions*
 - *HEU Supply*
- Model derives demand for production

PRICE Presentation to PNC

Analytical Framework (cont.)

- Price/production matrix is calculated based on project database
- Project database includes for each project
 - *Start-up Year*
 - *Shut-down Year*
 - *Ramp-up Profile*
 - *Reserves*
 - *Maximum Production Capability*
 - *Minimum Selling Price*
 - *Current Firm-price Contract Commitments*
- Calculation spot, long-term prices & production

PRICE Presentation to PNC



PRICE Presentation to PNC

U-PRICE Uranium Market Model - U_price.xls

File Jump Calculate Graphs Reports Help

100%

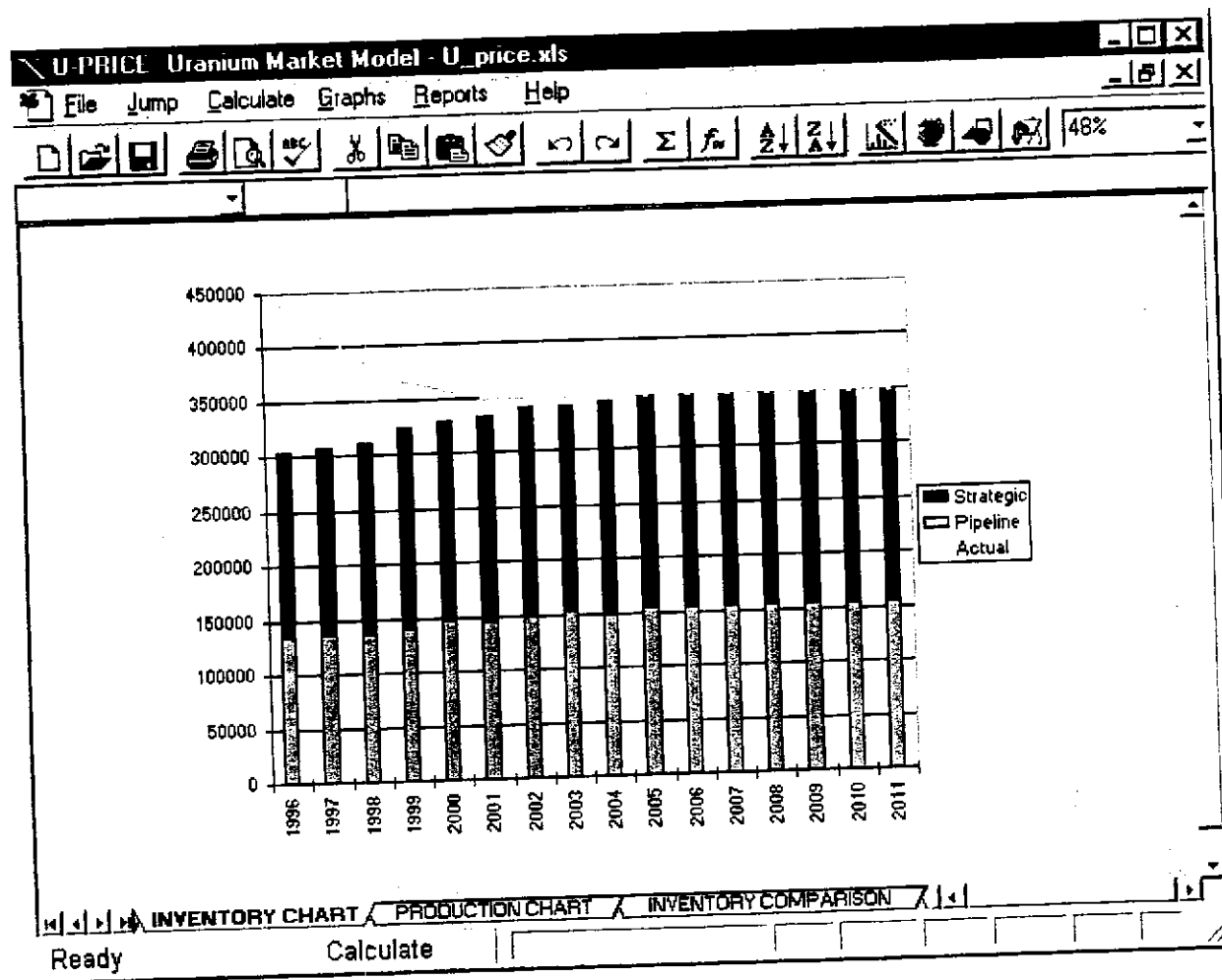
A107

	A	B	C	D	E	F	G	H	I
1	CUMULATIVE AVAILABLE PRODUCTION								
2									
3									
4									
5		1996	1997	1998	1999	2000	2001	2002	2003
6	\$5.00	0	0	0	0	0	0	0	
7	\$5.50	0	0	0	0	0	0	0	
8	\$6.00	0	0	0	0	0	0	0	
9	\$6.50	0	0	0	0	0	0	0	
10	\$7.00	0	0	0	0	0	0	0	
11	\$7.50	0	0	0	0	0	0	0	
12	\$8.00	0	0	0	0	0	0	0	
13	\$8.25	800	800	1800	3800	5200	5800	8000	8000
14	\$8.50	800	800	1800	3800	5200	5800	8000	8000
15	\$8.75	2600	5100	11600	16600	20000	22300	14000	14000
16	\$9.00	2600	5100	11600	16600	20000	22300	14000	14000
17	\$9.25	3700	6750	15500	21700	27300	31700	23600	25800
18	\$9.50	3700	6750	15500	21700	27300	31700	23600	25800
19	\$9.75	3700	6750	15500	21700	27300	31700	23600	25800

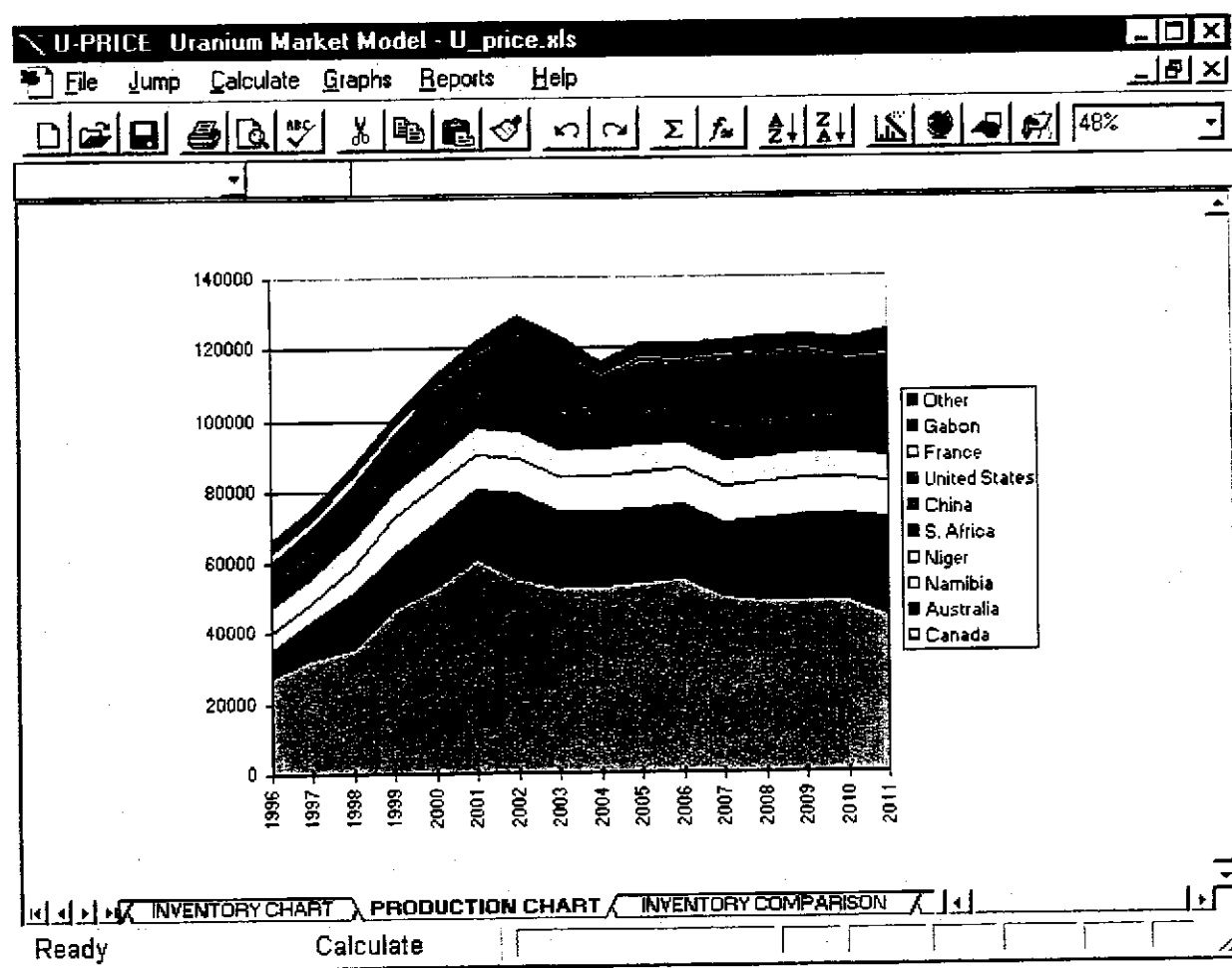
Price Production Matrix / CALCULATION PRICE / CALCULATION PRODUCTION

Ready Calculate Sum=0

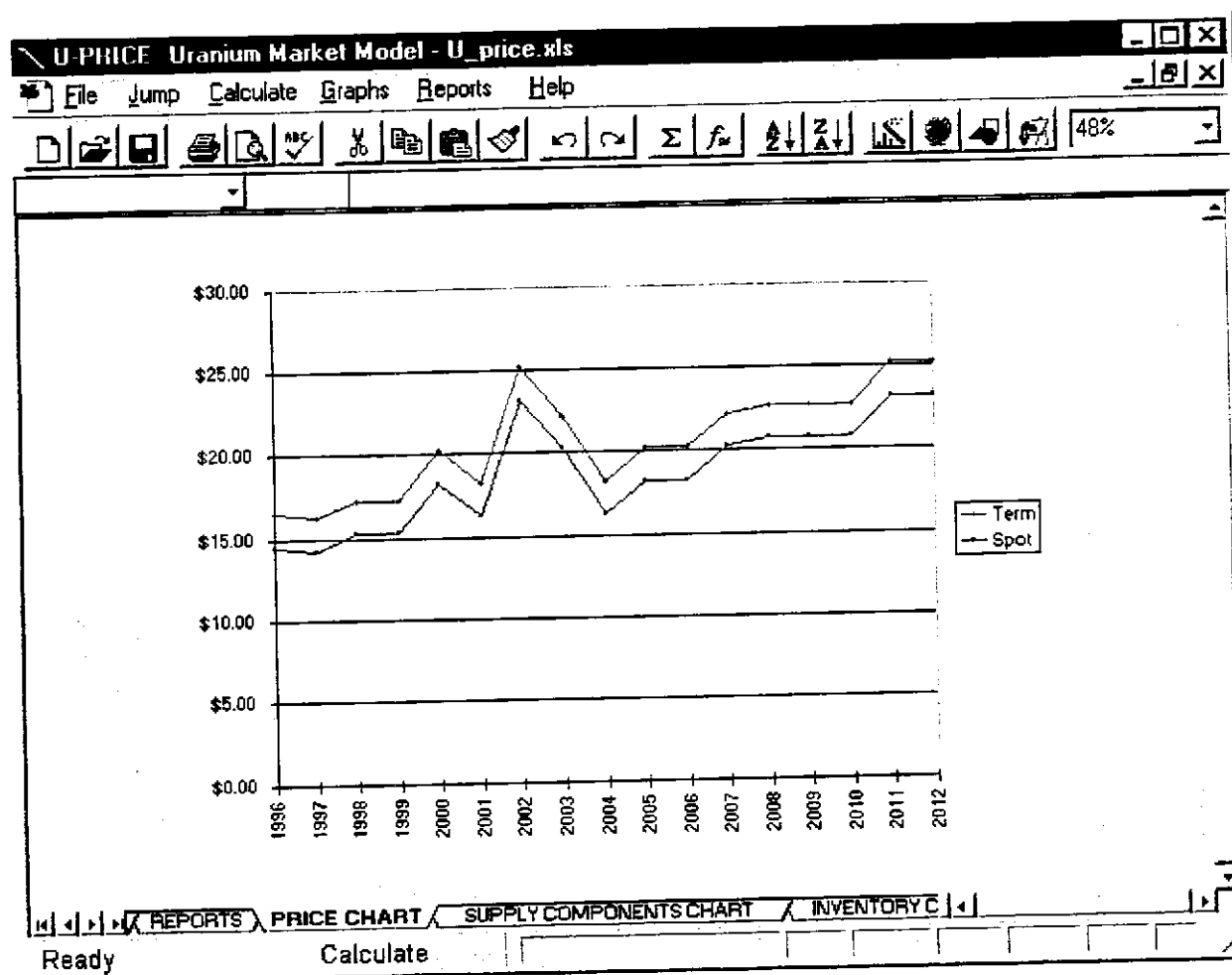
PRICE Presentation to PNC



PRICE Presentation to PNC



PRICE Presentation to PNC



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U-PRICE Analytical Features

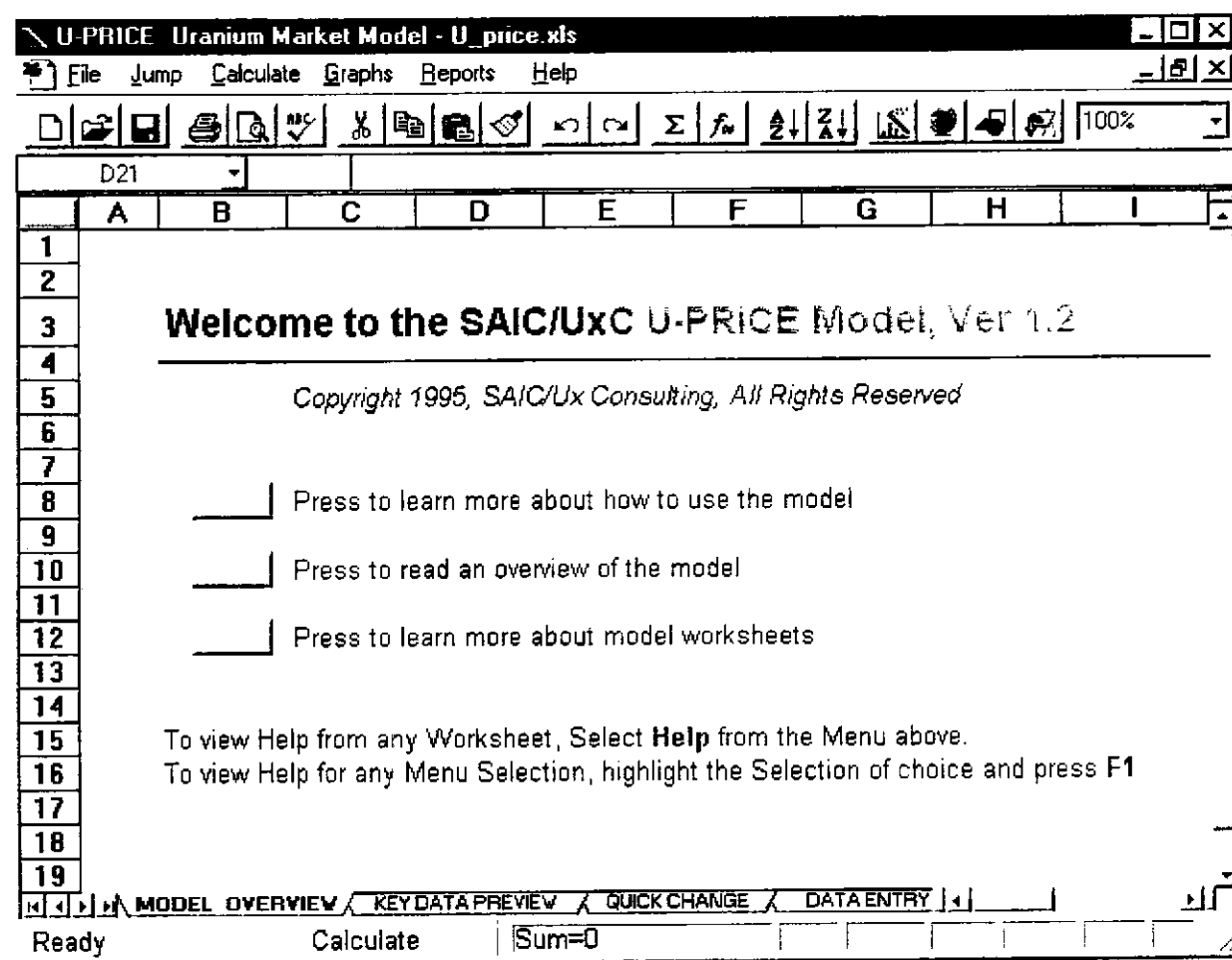
- **Simulates trade restrictions**
 - *Euratom*
 - *U.S. Suspension Agreements*
 - Kazakh Price-tied Quota*
 - Uzbek Production-tied*
 - Russian Matching*
- **HEU supplies**
- **Inventories**
- **Optimal tails assay-enrichment price effects**
- **Forecasts production on a project basis**

PRICE Presentation to PNC

Computer Operation and Features

- **Runs on MS-Excel for PC**
- **Designed to be easy to use**
 - *Menu-driven*
 - *Dialogue box*
 - *Context-sensitive help files*
 - *Case-saving feature*
- **Flexible**
 - *Detailed or aggregate inputs (Quick Change)*
 - *Customized runs*
 - *Custom reports and graphs*

PRICE Presentation to PNC



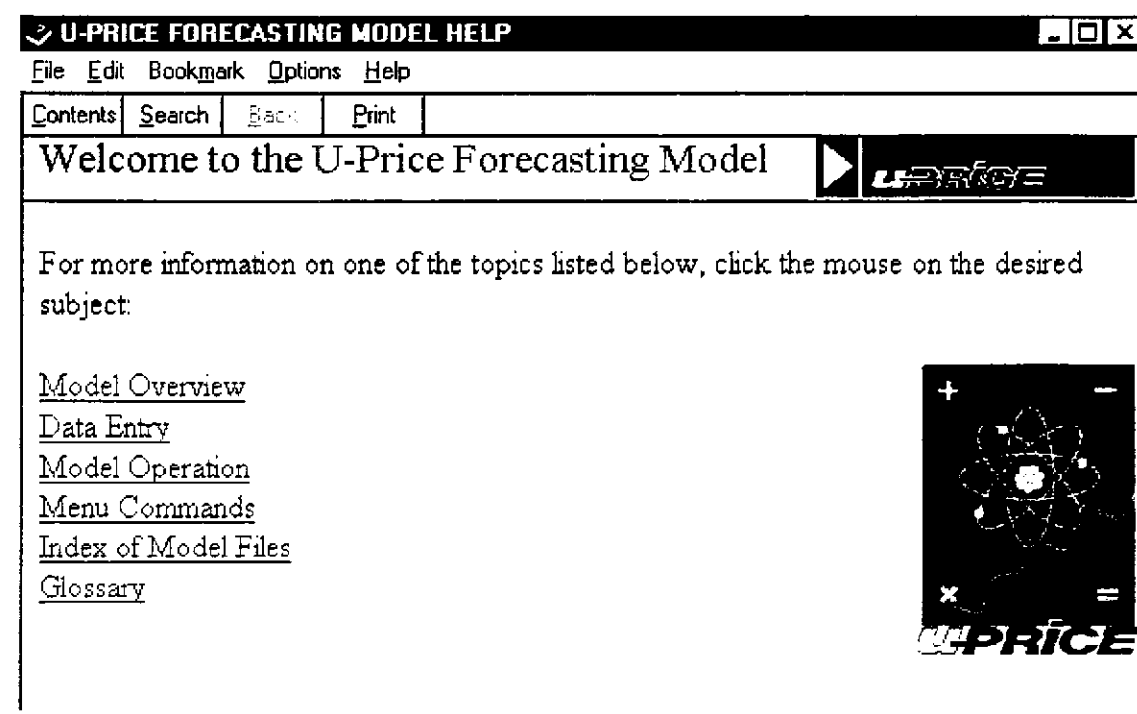
PRICE Presentation to PNC

U-PRICE Uranium Market Model - U_price.xls					
File Jump Calculate Graphs Reports Help					
<div> <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> </div> <div> <div>B</div> <div>EN</div> <div>Ta</div> <div>Ta</div> <div>Enrichment Feed Assay</div> <div>SWU Price Projection</div> <div>Conversion Price Projection</div> <div>ENRICHMENT BYPASS</div> <div>European SWU Capacity (00</div> <div>Sales to U.S. Utilities</div> <div>Unsold Capacity</div> <div>Unsold Percentage Available to U.S.</div> <div>Unsold Capacity Available to U.S.</div> <div></div> <div>U.S. SWU Demand (000 SWU)</div> <div>Commitments with USEC</div> <div></div> </div> </div>					
<div> <div>Introduction</div> <div>Quick Changes</div> <div>Demand Calculation ...</div> <div>Price/Production Matrix</div> <div>Price Calculation</div> <div>Uranium Production</div> <div>Optimal Tails Calculator</div> <div>Market Assumptions ...</div> <div>Project Calculation ...</div> </div>					
<div> <div>Best Case</div> <div>Default Case</div> </div>					
<div> <div>1996</div> <div>1997</div> <div>1998</div> <div>1999</div> <div>2000</div> </div>					
<div> <div>Enrichment</div> <div>HEU Supplies</div> <div>Trade Restrictions</div> <div>Uranium Requirements</div> <div>Natural Uranium</div> <div>Inventories</div> <div>Economic/Exchange Rates</div> <div>Price, User-specified</div> <div>Model Switches</div> </div>					
<div> <div>0.30</div> <div>0.20</div> <div>0.71</div> <div>0.00</div> <div>\$6</div> <div></div> <div>97</div> <div>000</div> <div>1000</div> <div>50%</div> <div>500</div> <div>10000</div> <div>8100</div> <div>1000</div> </div>					
<div> <div>0.30</div> <div>0.20</div> <div>0.71</div> <div>\$100</div> <div>\$6</div> <div></div> <div>1998</div> <div>12000</div> <div>1000</div> <div>50%</div> <div>500</div> <div>10000</div> <div>8100</div> <div>1000</div> </div>					
<div> <div>0.30</div> <div>0.20</div> <div>0.71</div> <div>\$100</div> <div>\$6</div> <div></div> <div>1999</div> <div>12000</div> <div>1000</div> <div>50%</div> <div>500</div> <div>10000</div> <div>8100</div> <div>1000</div> </div>					
<div> <div>0.30</div> <div>0.20</div> <div>0.71</div> <div>\$100</div> <div>\$6</div> <div></div> <div>2000</div> <div>12000</div> <div>1000</div> <div>50%</div> <div>500</div> <div>10000</div> <div>8100</div> <div>1000</div> </div>					
<div> <div>DATA ENTRY</div> <div>MARKET DATA</div> <div>DATA ENTRY</div> <div>DEMAND</div> <div>CALCULATION</div> </div>					
Jump to Market Data - Enrichment					

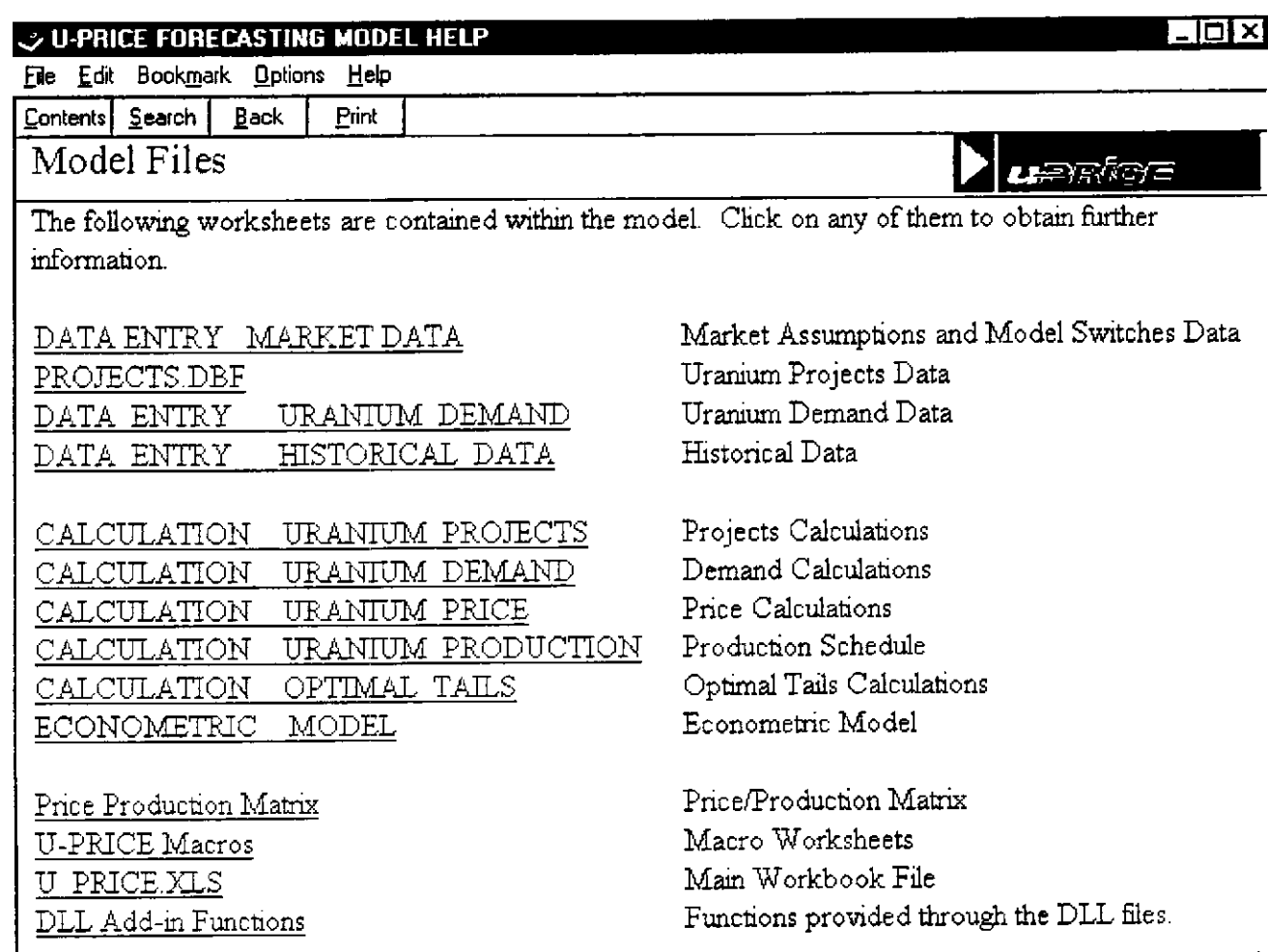
PRICE Presentation to PNC

Uranium Market Model Switches	
Demand Units <input checked="" type="radio"/> Metric Tons Uranium <input type="radio"/> 1000 Lbs Uranium	<input type="text" value="1996"/> Starting Year for Model
Price Calculation <input checked="" type="radio"/> Fundamental <input type="radio"/> Econometric	Model Control <input type="checkbox"/> Use Optimal Tails @ <input type="checkbox"/> Use Enrichment Bypass <input checked="" type="checkbox"/> Use HEU Blending <input type="checkbox"/> Use USEC Overfeed <input type="checkbox"/> Use Russian Matching @ <input checked="" type="checkbox"/> Ignore Capacity Factors <input checked="" type="checkbox"/> Ignore Exchange Rates
Inventory Policy <input checked="" type="radio"/> User Entered Inventory Policy <input type="radio"/> Econometric Values	<input type="text" value="16"/> Years to Calculate
Initializing Values <input type="text" value="\$11.50"/> U3O8 Price (\$) <input type="text" value="\$100"/> SWU Price (\$)	<input type="text" value="0%"/> Percent Production During Price Downturn
<div>OK</div> <div>Cancel</div> <div>Help</div>	

PRICE Presentation to PNC



PRICE Presentation to PNC



PRICE Presentation to PNC

U-PRICE FORECASTING MODEL HELP

File Edit Bookmark Options Help

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Menu Commands ▶ U-PRICE

The following commands are available from the Model Menu Bar that replaces the standard Excel Menu Bar during model operation. These commands may be accessed by either clicking on the word, or by holding down the <Alt> key and pressing the red highlighted letter shown below.

File Commands

Provides a means of temporarily exiting to Excel (Halt Model), exiting the model completely (Exit Model), or saving files.

Jump Commands

These commands provide a quick means of jumping to other worksheet areas. Jumps include: Supply, Demand, Price, Production, and Market

U-PRICE FORECASTING MODEL HELP

File Edit Bookmark Options Help

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Glossary ▶ U-PRICE

Captive Production- Identifies supply to a country that will not be displaced by CIS supplies.

CIS Supplies- Uranium produced by the Former Soviet Union that is expected to be priced lower than any other supplier. Due to the fact that sales are independent of price, this supply is modeled as reducing demand for Western uranium supplies. Imports of CIS supplies are regulated on a regional basis, from price quotas in the United States to percentages of demand in other parts of the world. See: Trade Restrictions

Committed Production- Production from a project that is insensitive to price in that it will be produced irrespective of the current uranium price.

PRICE Presentation to PNC

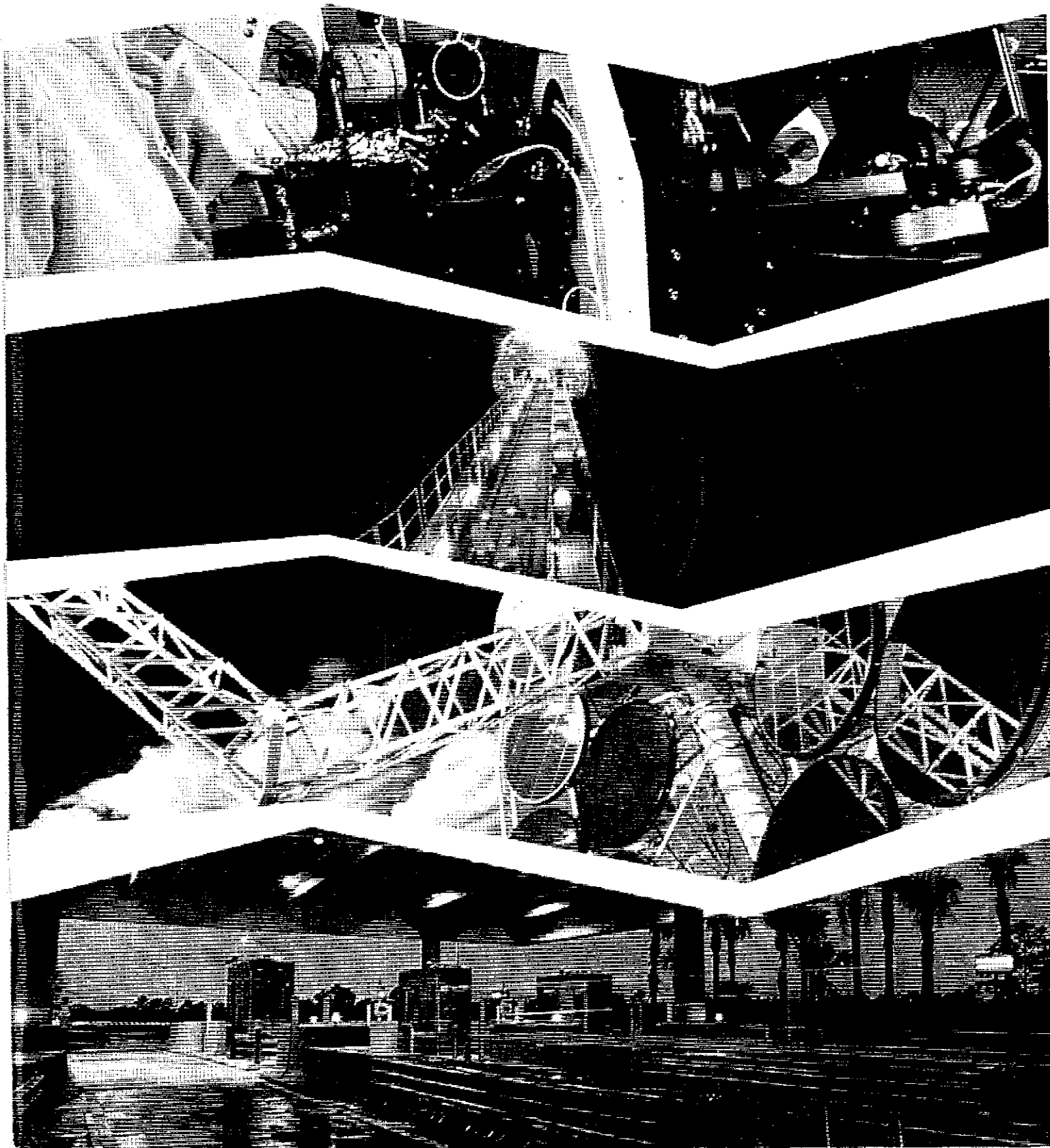
Support for Model

- Upgrade model for new market developments
- Upgrade for enhancements in software
 - *Version 1.3 to be released in May*
- Provide updates on market data used by model
- Maintenance agreement

付 属 書 3 . SAIC社 の 1 9 9 5 年 次 報 告

Science Applications International Corporation

1991 ANNUAL REPORT



SAIC

Looking TO OUR CUSTOMERS' Future

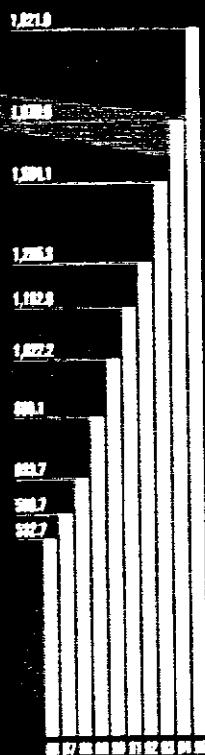
RAPID CHANGE CREATES MAJOR NEW OPPORTUNITIES FOR PROGRESSIVE COMPANIES LIKE SAIC THAT BRING NEW IDEAS AND TECHNOLOGIES TO THE TABLE. THIS PAST YEAR, WE HELPED CUSTOMERS BECOME MORE INNOVATIVE, PRODUCTIVE AND TECHNOLOGICALLY ADVANCED. WE HELPED THEM RESPOND TO COST-CUTTING PRESSURES, CHANGING NATIONAL AND INTERNATIONAL PRIORITIES, CHANGING MILITARY AND POLITICAL SITUATIONS, AND INCREASING ECONOMIC COMPETITION. ▲ OVER THE PAST 26 YEARS, SAIC HAS DEMONSTRATED A REMARKABLE ABILITY TO REINVENT ITSELF TO BETTER RESPOND TO CHANGING NATIONAL PRIORITIES—AND CHANGING CUSTOMER NEEDS. THIS ABILITY HAS FUELED OUR GROWTH TO NEARLY 19,000 EMPLOYEES, MORE THAN 475 OFFICES WORLDWIDE, AND REVENUES APPROACHING \$2 BILLION. ▲ WHAT HAS NOT CHANGED: SAIC'S ENTREPRENEURIAL SPIRIT AND SMALL-COMPANY FLEXIBILITY AND AGILITY. OUR REPUTATION AS A LEADING TECHNOLOGY FIRM AND A LEADING SYSTEMS INTEGRATOR. THE UNCOMMON BREADTH AND DEPTH OF EXPERTISE AND EXPERIENCE WITHIN SAIC AND OUR ABILITY TO PULL TOGETHER DIVERSE TEAMS AND TECHNOLOGIES TO ACHIEVE THE BEST SOLUTIONS. A COMMITMENT TO DELIVERING QUALITY AND TECHNICAL EXCELLENCE. FINALLY, OUR SYSTEM OF EMPLOYEE OWNERSHIP. NOW THE LARGEST EMPLOYEE-OWNED TECHNOLOGY FIRM IN THE UNITED STATES, SAIC SEES EMPLOYEE OWNERSHIP AS THE KEY TO RECRUITING AND RETAINING THE BEST PEOPLE AND INCENTIVIZING SUPERIOR PERFORMANCE.

Solutions for the future: At SAIC, we use our diverse technical expertise to meet a wide range of constantly changing customer needs. (On the cover, from top to bottom) Our researchers develop advanced optical surveillance technology for environmental research and national security applications. Our scientists and engineers help meet the nation's need for nuclear waste disposal and develop new solar technology to meet future energy needs. Our toll collection systems pay for new roads and prevent traffic congestion.

Contents

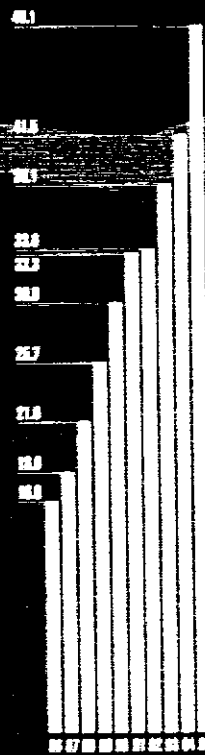
2	MESSAGE TO STOCKHOLDERS
4	INFORMATION TECHNOLOGY
6	HEALTH CARE
8	NATIONAL SECURITY
13	LAW ENFORCEMENT
14	ENVIRONMENT
17	GEOGRAPHICAL INFORMATION
18	ENERGY
20	TRANSPORTATION
22	OUR TEAM
24	DIRECTORS

Revenues \$ MILLIONS



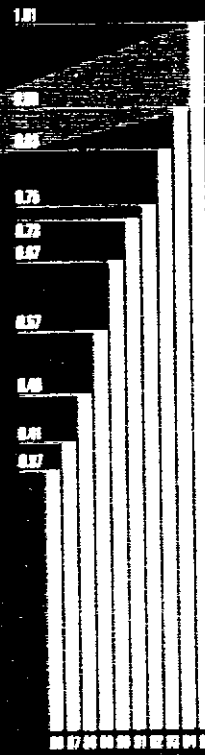
1995 \$1,921.9
1994 \$1,570.0
1993 \$1,506.1

Net Income \$ MILLIONS



1995 \$49.1
1994 \$41.5
1993 \$38.1

Earnings per Share



1995 \$ 1.01
1994 \$0.99
1993 \$0.63

Stockholders' Equity \$ MILLIONS



1995 \$387.6
1994 \$335.5
1993 \$280.0

Message to Stockholders

SAIC achieved record results in fiscal year 1995 because nearly 19,000 employee-owners once again combined their talents to perform successful work on wide-ranging contracts around the globe.

Ongoing programs continued to meet customer needs and deliver rewards for SAIC. Many new programs adapted existing technologies to new markets and customers across a broad spectrum of science and its applications.

These efforts produced the 25th consecutive year of record financial results for SAIC, with revenues rising 15% to \$1.9 billion and income growing 10% to over \$49 million. A combination of strong contract awards, improved program management, and internal expense control made possible these outstanding rates of revenue and income growth. In last year's Annual Report, we stressed the increasingly competitive business environment, including pricing and cost pressures, tough competition for contracts, limited

marketing resources, and reduced government spending. While these conditions remain a seemingly permanent part of our business landscape, this year's report highlights a new theme: the success with which we have adapted to these challenges over the past year.

Growth and Diversification

Our business in nondefense technical services increased from 42% to more than 44% of revenues. We branched out to serve new government customers, winning major contracts in the air traffic control, law enforcement, and health care areas. Shortly after fiscal year end, for example, we won the contract to operate the National Cancer Institute's largest research center. The NCI contract involves about 1,300 SAIC staff, making it our largest contract to date to operate a government-owned facility. While contracts with the U.S. government still account for most of our non-defense business, SAIC has responded to the continued tightening in government spending by diversifying and expanding its commercial and international businesses. We won major outsourcing con-



tracts from two British Petroleum companies, BPX Colombia and BPX Alaska.

Non-U.S. government revenues grew from 12% to 14% of total revenues last year. We achieved exceptional growth in health care, transportation, and other nondefense areas. We are integrating information systems for a major regional health care network, and developing a shipment management system for one of the largest U.S. railroads.

SAIC also won one of the largest plant information system contracts in the nuclear utility industry. We continued to win a larger share of a shrinking defense budget, particularly in the information technology area. Our revenues for national security services increased 7% to over \$660 million last year. We won major contracts to help develop the U.S. Army Global Command and Control System and to help the Army Information Systems Engineering Command upgrade

J.R. Beyster
George A. Kull

J.R. BEYSTER *Chairman of the Board and Chief Executive Officer*

G.A. KULL *President and Chief Operating Officer*



information technology and telecommunications.

Acquisitions

One-third of the company's 15% increase in revenues last year resulted from nine acquisitions made during the year. These acquisitions spanned the company's business areas, from energy to information systems support and transportation to telecommunications. As well as strengthening our base business, they brought technologies, people and customers to help us win more commercial and international business. An active acquisition program will remain a part of our growth strategy for the

foreseeable future. We also created new subsidiaries—SAIC de Mexico in response to passage of NAFTA, and SAIC de Colombia to better serve oil and gas companies globally. Another subsidiary, TSTI Australia, will expand our intelligent transportation business in Asia.

Reengineering

We continue to refine our organizational structure by combining smaller divisions in similar areas of technol-

ogy into larger, more efficient businesses. In fiscal 1995, for example, we formed a new Energy, Environment and Engineering Sector, created a new Technology Solutions Sector and a commercial Information Resources Group, defined and expanded our Transportation Sector, and sharpened the focus of our Systems Technology and Integration Sector. These efforts will save needed resources, improve management controls, and create teams that have the "critical mass" required to win larger contracts. Two of the best measures of our success in responding to change during fiscal 1995 are our year-end bookings and year-end backlog. SAIC received over \$2.6 billion in new contract awards last year, ending the year with a funded backlog of \$1 billion. We will continue to put customer needs first, and continue to add skilled people to expand our growing business areas while preserving the decentralized, entrepreneurial value system that underlies our success. For example, the company added 4,000 new employees last year, including 1,000 who joined through acquisitions.

This challenges us all to integrate these people quickly into the SAIC employee-ownership culture while preserving the highest levels of quality and service to customers. As we look to the future, SAIC will continue to evolve and respond to major shifts in markets and customer needs. Following a vision that emphasizes technical excellence, employee ownership, adaptability, and growth, SAIC continues to achieve outstanding performance year after year. SAIC's achievements over a quarter century result from exceptional people and adherence to fundamental values, built upon our employee-ownership philosophy. In fiscal 1995, we continue to reaffirm our values as we face new business challenges. Our core values guide the behavior of today's SAIC, and point the way to the larger, more diversified and even more successful SAIC we envision for the future.


Information Technology

Superior information technology gives many companies an advantage in today's competitive environment. SAIC designs information technology solutions to help its customers stay competitive and poised to respond to changes in their environments. As a result, independent surveys rank SAIC among the top IT companies in the world. ▲ SAIC offers a full range of information technology services, from consulting to systems integration to outsourcing services. Our expertise includes open systems, client/

server architectures, sophisticated networks, and extensive software development.

CONSULTING Before making sweeping information technology changes, effective organizations are taking a close look at business processes. The Florida Department of Labor recently sought out SAIC consulting services for a workflow reengineering study. Our work is helping FDL plan better electronic document management in processing workers' compensation and dispute resolution cases. ▲ We are also breaking new ground with our work in information protection, privacy and security.

We developed a business-based information protection plan for one of the world's largest insurance companies. Going beyond ordinary technical protection plans, we analyzed the company's policies and procedures, electronic environment, networks and telecommunications, and business productivity and requirements, before recommending cost-effective engineering and business solutions. For one of the world's largest brokerage firms, we prepared an information crisis management plan



SAIC handheld 486 PC computers helped crew monitor boat performance during the America's Cup races.

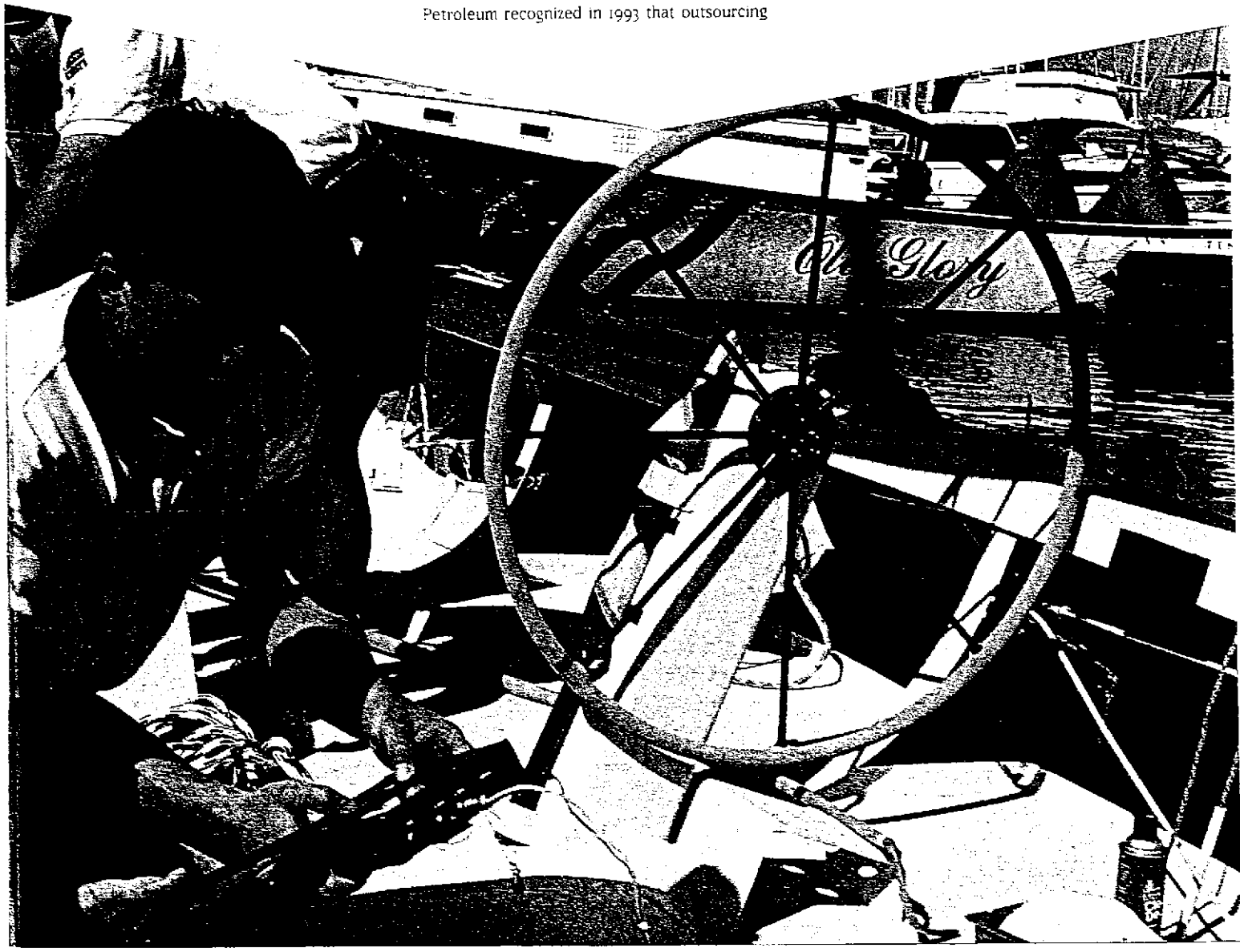
designed to keep operations running properly, even in the face of electronic attack.

SYSTEMS INTEGRATION Strategic systems integration has been one of SAIC's strengths for nearly 25 years. Our systems serve customers in a wide range of industries, including health care, oil and gas, transportation, utilities, banking, insurance, communications, and entertainment. We designed and built the largest hospital information system in the world. We also designed and built the largest

medical telecommunications system in the United States. We are the leading integrator of plant process computer systems for the U.S. nuclear power industry. For the transportation industry, we are the leading North American integrator of automatic equipment identification technology for shipment tracking. Finally, we integrated one of the largest information systems in law enforcement—the FBI fingerprint identification system serving all U.S. law enforcement agencies.

OUTSOURCING SERVICES British Petroleum recognized in 1993 that outsourcing

its information systems would save money and allow staff to focus on more important activities like oil exploration. Accordingly, BP Exploration chose SAIC as a worldwide partner to accomplish this goal. BPX estimates that outsourcing these tasks has saved some 20% in operating costs, allowing the company to be more competitive. ▲ In addition to designing and integrating the largest health care information system in the world, SAIC staff also manage the computer facilities for the largest providers in this extensive health care network.

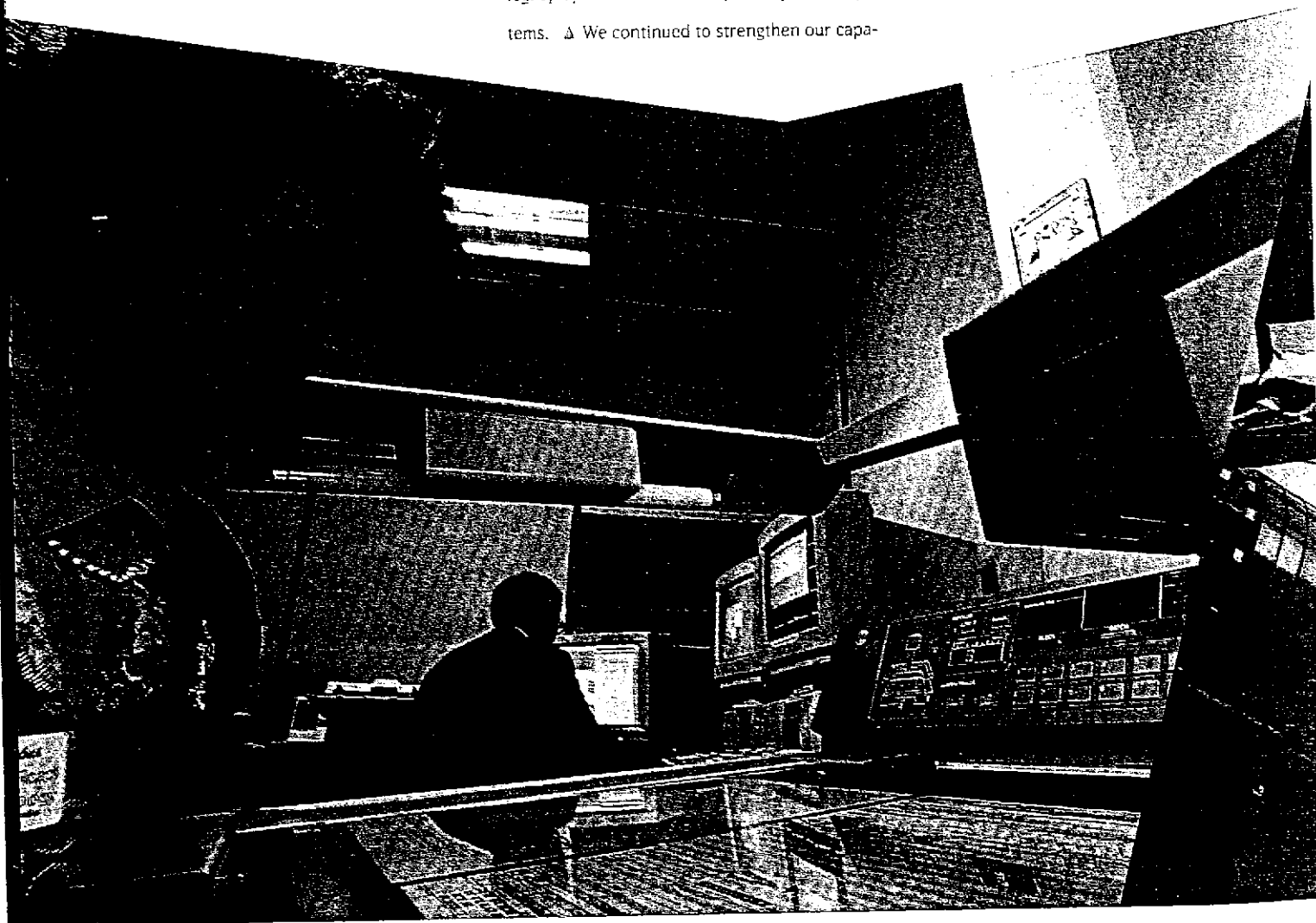


Health Care

INFORMATION SYSTEMS Whether in the private sector or government, our health care clients share the same challenges: lowering costs while improving the quality of care. Our success in meeting these needs has made SAIC one of the top health care systems integrators in the United States. Δ Operating in hospitals and clinics worldwide, our systems give medical staffs faster, more accurate, and more complete access to critical patient data. They allow administrators to process patients more efficiently. Using a new system feature, administrators can now manage multiple hospitals as one facility for patient scheduling and adminis-

trative tasks. Δ Over the last decade, SAIC has advanced the state of the art in computerized patient records, integrated delivery systems, outcomes management systems, enterprise-wide telecommunications, open systems, and upgrades for legacy systems. Δ On the forefront of new technology, SAIC's new clinical workstation toolset will provide easier sharing of patient and business information for the 71 hospitals and HMOs in the Harris Methodist Health Services Group in Fort Worth, Texas. Our large toolkit also includes applications to improve worker productivity, rapidly prototype future functions, and help workers use a mix of legacy systems and new repository-based systems. Δ We continued to strengthen our capa-

bilities in commercial health care systems with a key acquisition. Our new JDA subsidiary has a reputation as a forward-looking partner in helping commercial health care institutions plan and implement integrated computer systems. Δ Also supporting this commercial work, SAIC developed the largest health care information system in the world. It serves about nine million DoD beneficiaries and boasts some of the highest levels of reliability, maintainability, and on-line support in the hospital information system industry. Δ On our newest DoD health care contract (awarded shortly after fiscal year



end), we are building community networks linking military medical facilities (using our system) with civilian providers and VA medical centers. ▲ In an impressive experiment in telemedicine, SAIC helped link physicians aboard a hospital ship off the coast of Haiti with major U.S. military hospitals. As a result, the ship's doctors were able to give U.S. soldiers better medical treatment.

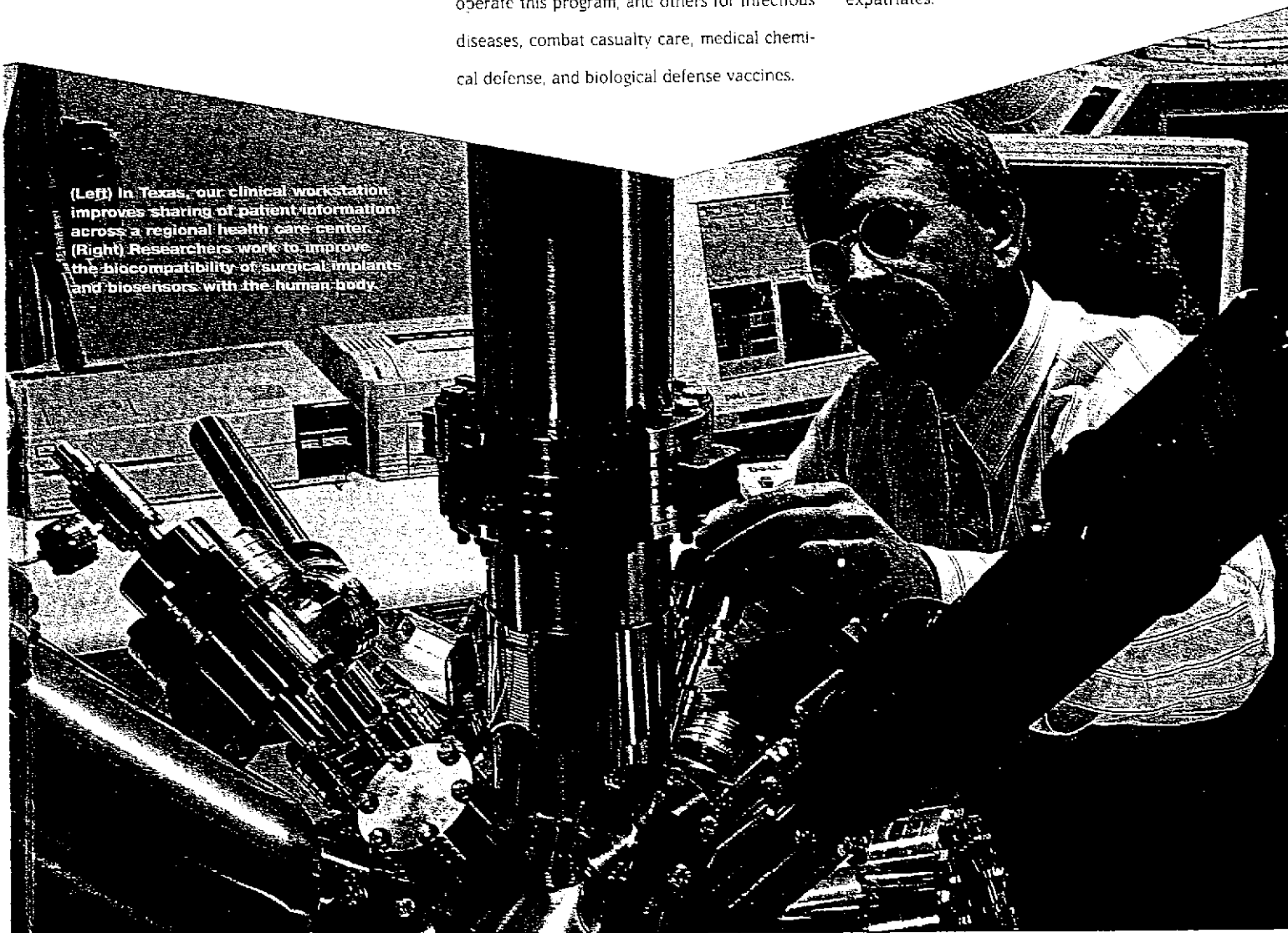
MEDICAL SCIENCE At the frontiers of medical science, SAIC conducts and supports leading-edge research into cancer and AIDS causes and treatments at the National Cancer

Institute's Frederick Cancer Research and Development Center. Shortly after the fiscal year ended, SAIC won the contract to provide scientific resources and services to this major research center. About 1,300 SAIC scientists and technical staff support wide-ranging programs, including *in vitro* screening of anti-tumor and anti-AIDS compounds, experimental clinical trials, and AIDS vaccine development. ▲ SAIC has also been a key partner in helping achieve successes with the breast cancer research program mandated by Congress. Our technical and administrative support helps the U.S. Army operate this program, and others for infectious diseases, combat casualty care, medical chemical defense, and biological defense vaccines.

HUMAN HEALTH SERVICES

SAIC supports the U.S. Army in providing counseling to military dependents in Europe and Asia. Using the Army program as a model, a consortium of Fortune 500 companies requested similar services. SAIC's Overseas Assistance Program supports expatriates and their families in more than 14 countries. We recently helped Procter & Gamble's employees cope with the earthquake in Kobe. We sent a team of clinicians to Japan to provide critical incident stress debriefings, counseling, management consultation, and crisis management services to P&G expatriates.

(Left) In Texas, our clinical workstation improves sharing of patient information across a regional health care center.
(Right) Researchers work to improve the biocompatibility of surgical implants and biosensors with the human body.



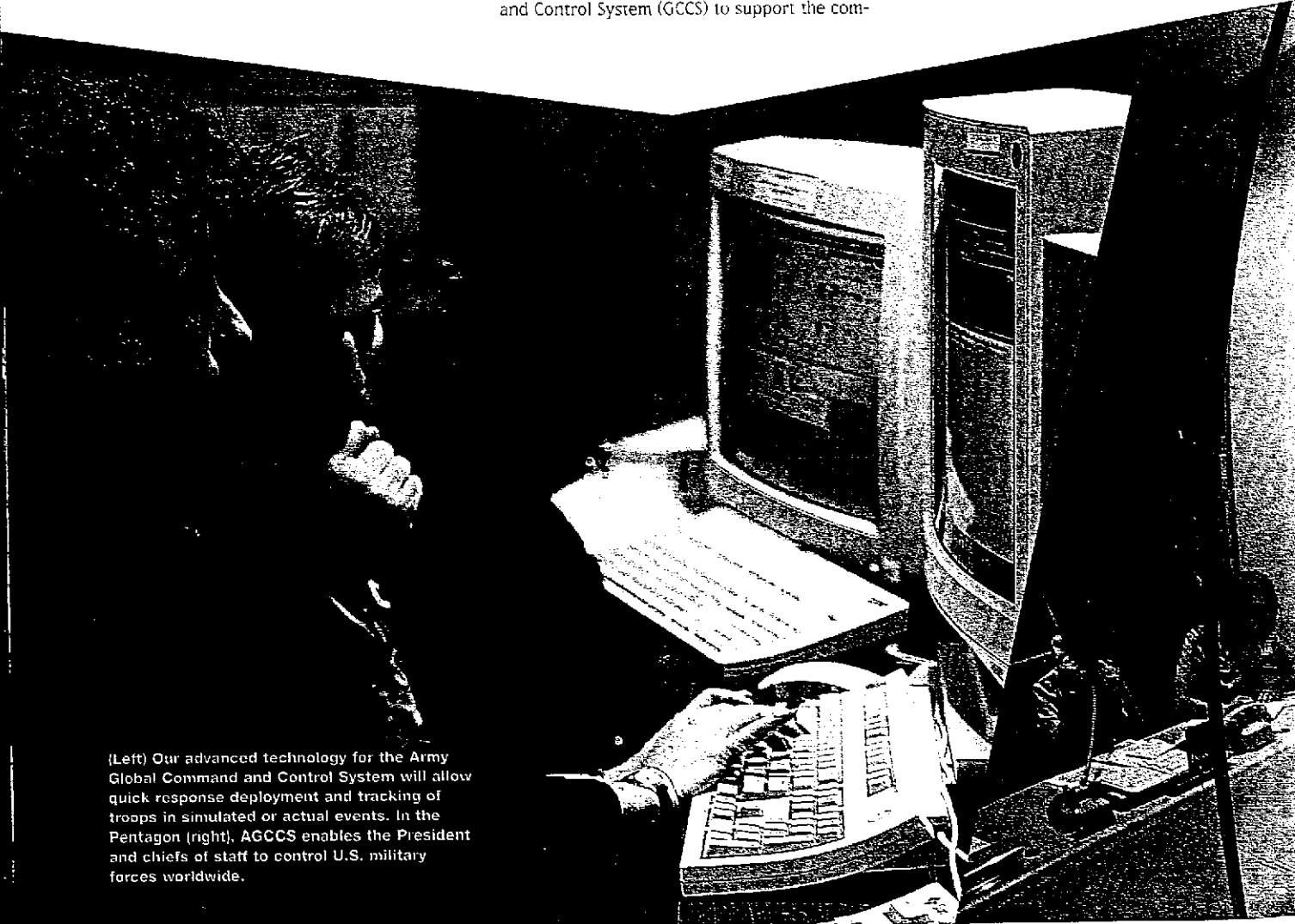
National Security

For more than a quarter century, SAIC has been responding to fast-changing military priorities, constantly pushing the state of the art. Committed to anticipating—and meeting—our customers' changing needs as they arise, SAIC is a leader in leveraging technology to improve force effectiveness.

COMMAND AND CONTROL Our work in command and control technology epitomizes this ability. We are helping set new standards for interoperability, situational awareness, and real-time decision support. Our achievements will help commanders better

manage military operations in rapidly changing world situations. At the same time, our technology will help the Department of Defense make better use of existing resources and reduce costs for the future. ▲ We stand at the center of a drive to develop a global command, control, communications, computer, and intelligence (C⁴I) system that will directly link and support combat troops for all U.S. Services. ▲ Years ahead of the competition, SAIC used its own IR&D funds to demonstrate the feasibility of this concept in December 1993. Our success led the Defense Information Systems Agency to select SAIC to integrate the Global Command and Control System (GCCS) to support the com-

manders-in-chief of the unified commands. In December 1994, this foresight again paid off when SAIC, with prime Lockheed Martin, won the contract to build the main U.S. Army command and control system, called the Army GCCS. ▲ Envisioned as a joint C⁴ system of C⁴ systems, GCCS is a global network of fused information that will give the joint task force commander an accurate, real-time picture of the battlespace. Even more important, it will give commanders the ability to configure forces horizontally and vertically—a crucial capability



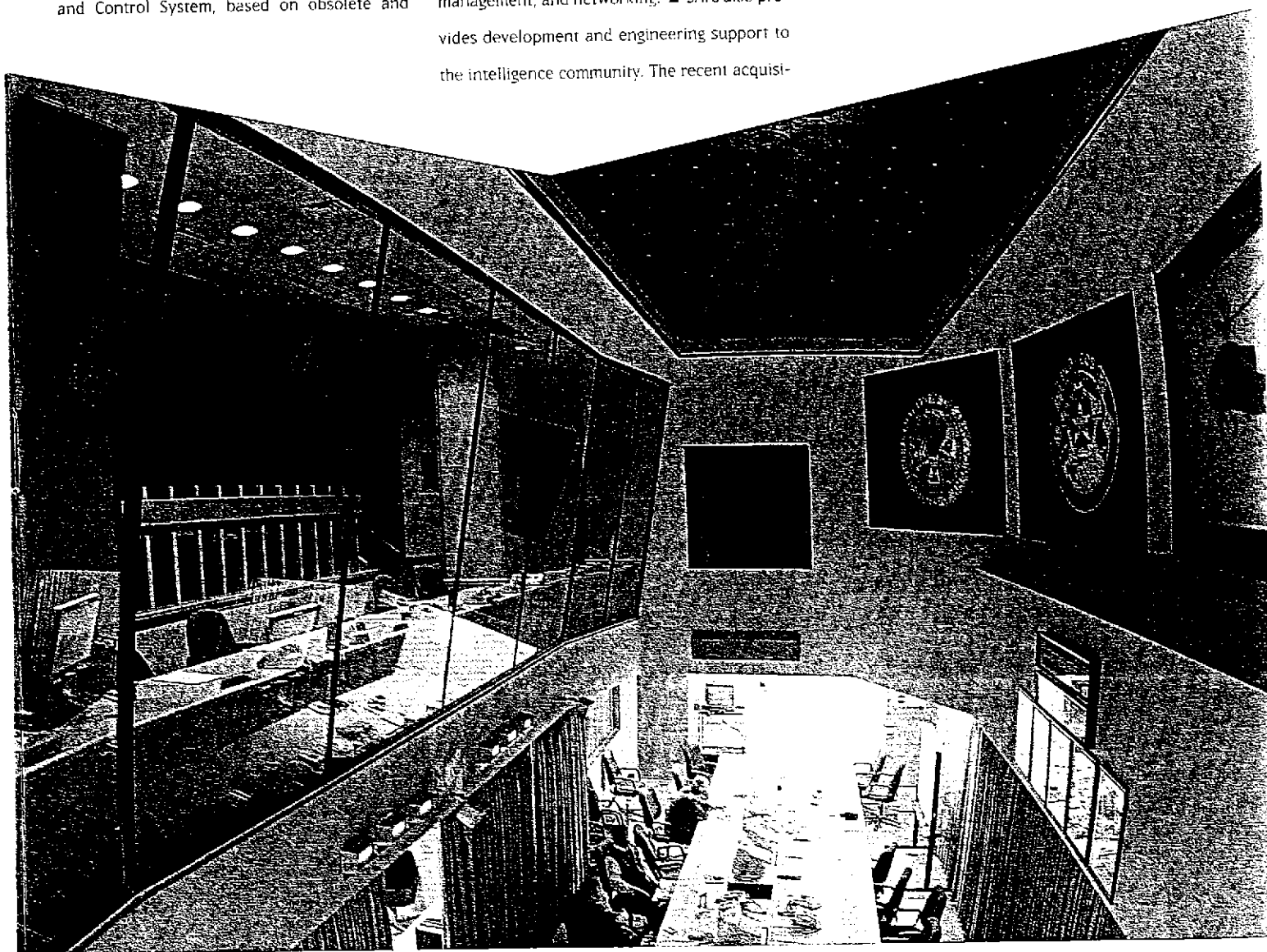
(Left) Our advanced technology for the Army Global Command and Control System will allow quick response deployment and tracking of troops in simulated or actual events. In the Pentagon (right), AGCCS enables the President and chiefs of staff to control U.S. military forces worldwide.

for fighting and winning battles. ▲ The evolutionary integration of diverse C⁴ systems into a seamless solution is a significant step forward in systems integration. At the heart of GCCS lies the common operating environment that could serve as the basis of all C⁴I for the Defense Department into the next century. It provides both hardware independence and open system interfaces to support the "best" applications software from each of the Services, including many applications developed by SAIC. GCCS will also replace the World Wide Military Command and Control System, based on obsolete and

expensive-to-maintain mainframe computers. ▲ Our command and control support to field units offers another example of our responsiveness to changing customer needs. Last year, an SAIC team moved quickly to provide on-site support for refugee relief operations in Entebbe, Uganda. Based in Europe, this team of SAIC engineers, analysts and technicians can move into the field with U.S. Army soldiers on short notice to support theater command and control. Their work includes architecture development, engineering, integration, configuration management, and networking. ▲ SAIC also provides development and engineering support to the intelligence community. The recent acqui-

sition of the government business units of Ideas, Inc. strengthened our ability to provide quick reaction hardware and software in response to today's evolving threats.

ADVANCED SIMULATION As advanced distributed simulation technology advances into the next millennium, our global approach will stress interoperability of simulation and live C⁴I systems under a common information technology structure. As part of this plan, SAIC teamed with the Advanced Research Projects Agency (ARPA) and the U.S. Army



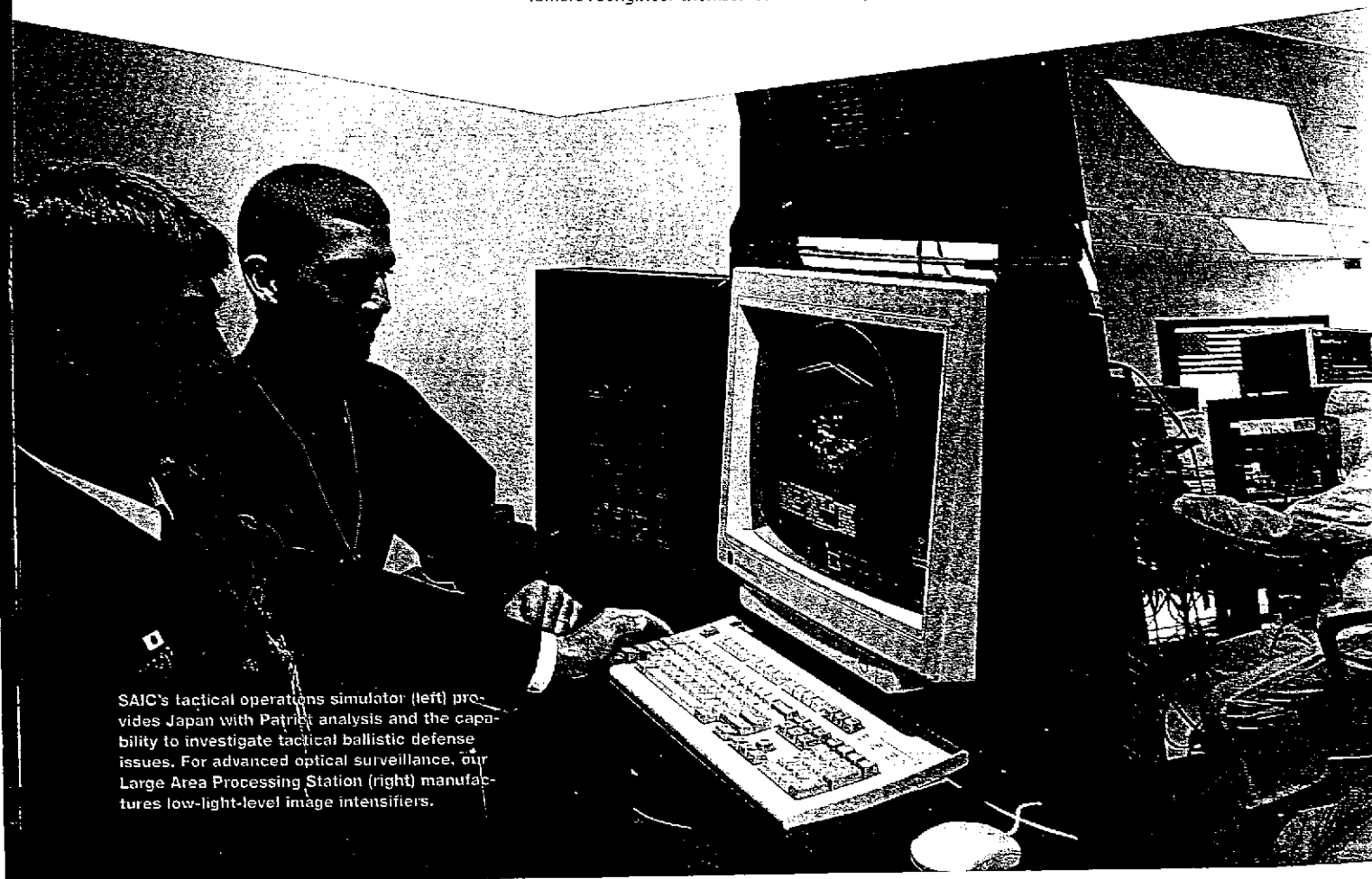
Simulation, Training and Instrumentation Command to fund research on simulation interoperability. Our staff also successfully demonstrated Phase I of a framework that realistically represents mission, enemy, troops, terrain, and time. With a computer representation of these components in place, semi-automated forces will have command-level decision support that significantly expands current battle training capabilities. ▲ In anticipation of the 1997 Synthetic Theater of War (STOW) demonstration, the U.S. Navy contracted with SAIC to improve network protocols used for TCP/IP and ATM networks. SAIC's challenge: to lay the technical groundwork for the commercial marketplace to develop networking products for use in

STOW'97. ▲ SAIC completed a major architectural design of core simulation software for ARPA's War Breaker program this year. Known as SIMCORE, this framework handles multiple War Breaker simulation, systems engineering, and modeling/analysis applications. ▲ Looking for a new dimension in simulation applications, the Defense Nuclear Agency asked for SAIC help in using advanced simulation as an alternative to live weapon firings. By combining our expertise in distributed simulation technology and object-oriented COMPASS middleware, we are incorporating blast, thermal and radiation effects into the mission planning process.

INFORMATION MANAGEMENT

SAIC has been helping many of our military customers reengineer themselves into leaner, more

efficient organizations. At the top level, SAIC is supporting DoD's renovation of the 52-year-old Pentagon, one of the largest buildings in the world and workplace for nearly 25,000 people. Under U.S. Army direction, our staff are creating an evolving building-wide "enterprise network" of shared communications and computing services. We are designing the network to operate more efficiently than today's disparate systems, yet require less human and fiscal resources to operate and maintain. ▲ This effort benefits from our extensive experience in client/server technology; distributed processing; increased networking sophistication; the use of commercial hardware, software, and standards; as well



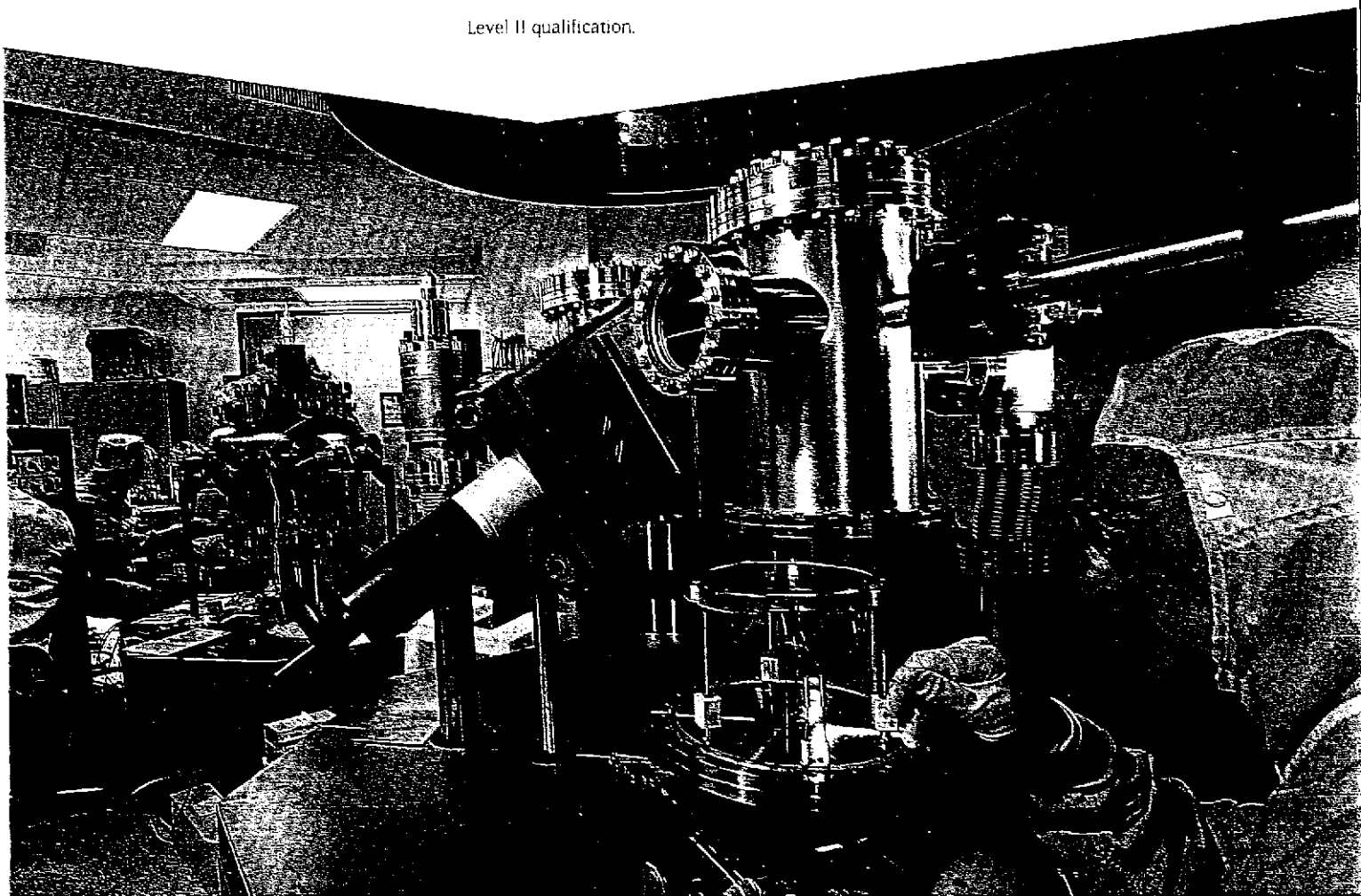
SAIC's tactical operations simulator (left) provides Japan with Patriot analysis and the capability to investigate tactical ballistic defense issues. For advanced optical surveillance, our Large Area Processing Station (right) manufactures low-light-level image intensifiers.

as innovative ways to share new or existing services or technology. ▲ Our Pentagon work is part of a major five-year, follow-on contract awarded last year by the U.S. Army Information Systems Engineering Command. During our previous five-year contract, SAIC completed more than 1,000 projects to upgrade information technology and telecommunications systems for various Army commands.

EXTENDING LIFE CYCLES Our contributions improve capabilities and extend life cycles for a wide variety of systems. Under a major follow-on contract, we continued helping the Sacramento Air Logistics Center with reliability and maintainability upgrades to a wide range of U.S. Air Force weapon systems and

support equipment. Our successful technology insertion efforts have ranged in complexity from board level redesigns to full replacements, from developing new automated software tools to demonstrating technologies. ▲ SAIC and the U.S. Army are working together to achieve better quality and more cost-effective maintenance and upgrades for fielded missile systems and the wide range of legacy software they encompass. We recently helped the Software Engineering Directorate at U.S. Army Missile Command (MICOM) upgrade the software skills of its own staff while fulfilling our own contract requirements. With our help, MICOM became the Army's first life cycle software organization to achieve a Software Engineering Institute Level II qualification.

POLICY ANALYSIS The proliferation of weapons of mass destruction, the rise of regional tensions, and the specter of longer range ballistic missiles in the hands of leaders unfriendly to the United States or its allies pose threats to global security and stability. SAIC has been at the forefront of planning with our Cooperative Threat Reduction program, arms control initiatives, and counterproliferation strategy. Our unique combination of international security expertise, technical understanding of system performance, and modeling and simulation capability has allowed SAIC to anticipate client needs and structure a comprehensive research program to address the issues.

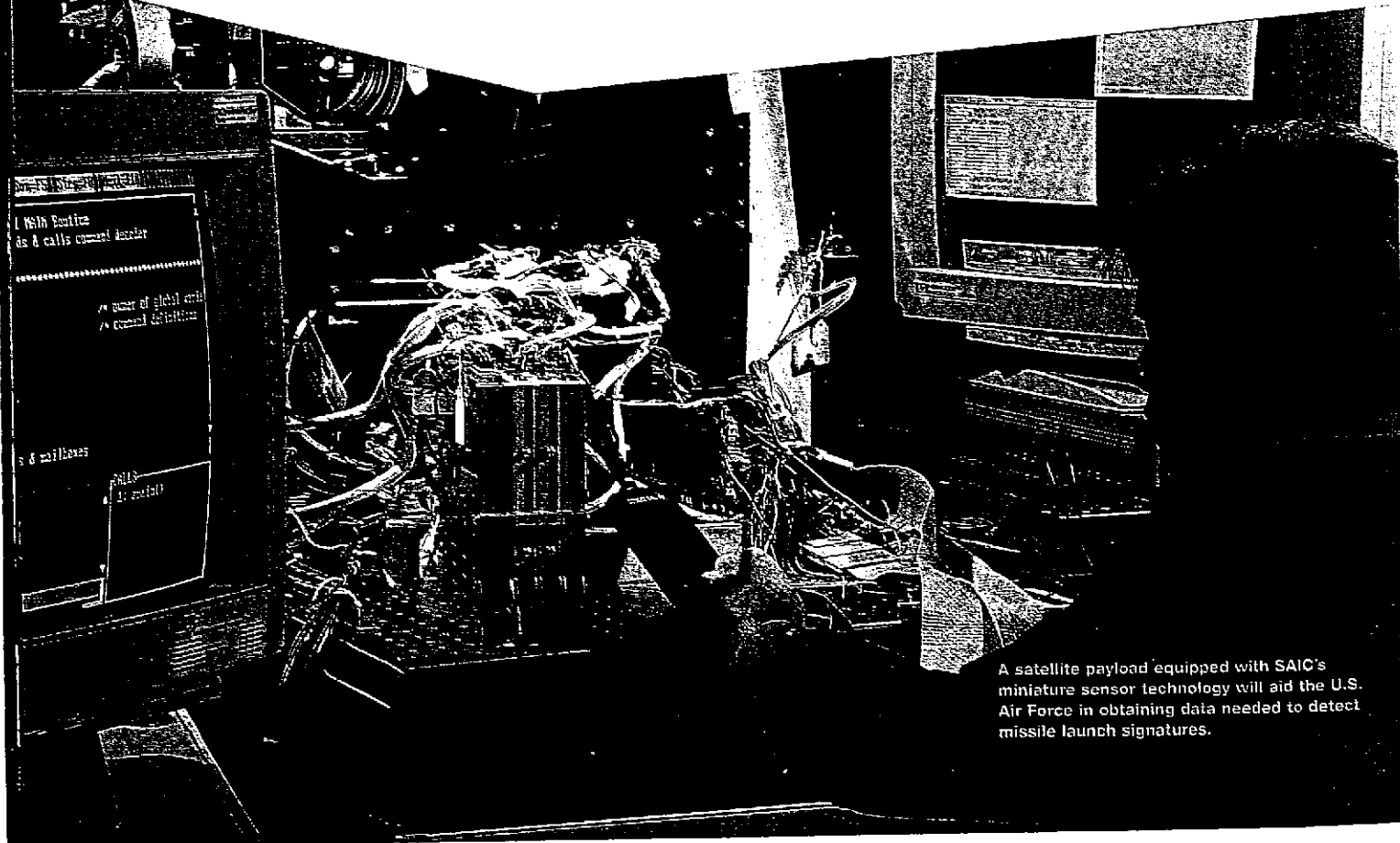


MILITARY TECHNOLOGY SAIC contributes advanced technologies to help developing military systems meet the challenges of a rapidly changing world order. As U.S. military policy evolved away from emphasis on strategic nuclear weapons, SAIC refocused its development capabilities on high-technology tactical conventional weapons. Our contribution to the U.S. Navy/Defense Nuclear Agency Electro-Thermal Chemical Gun illustrates this new focus. We applied our capabilities in combustion dynamics to develop a new electrically augmented propellant that greatly extends the gun's maximum range. Using advanced fluid dynamics and high-strength composites, we also developed a long-range, precision

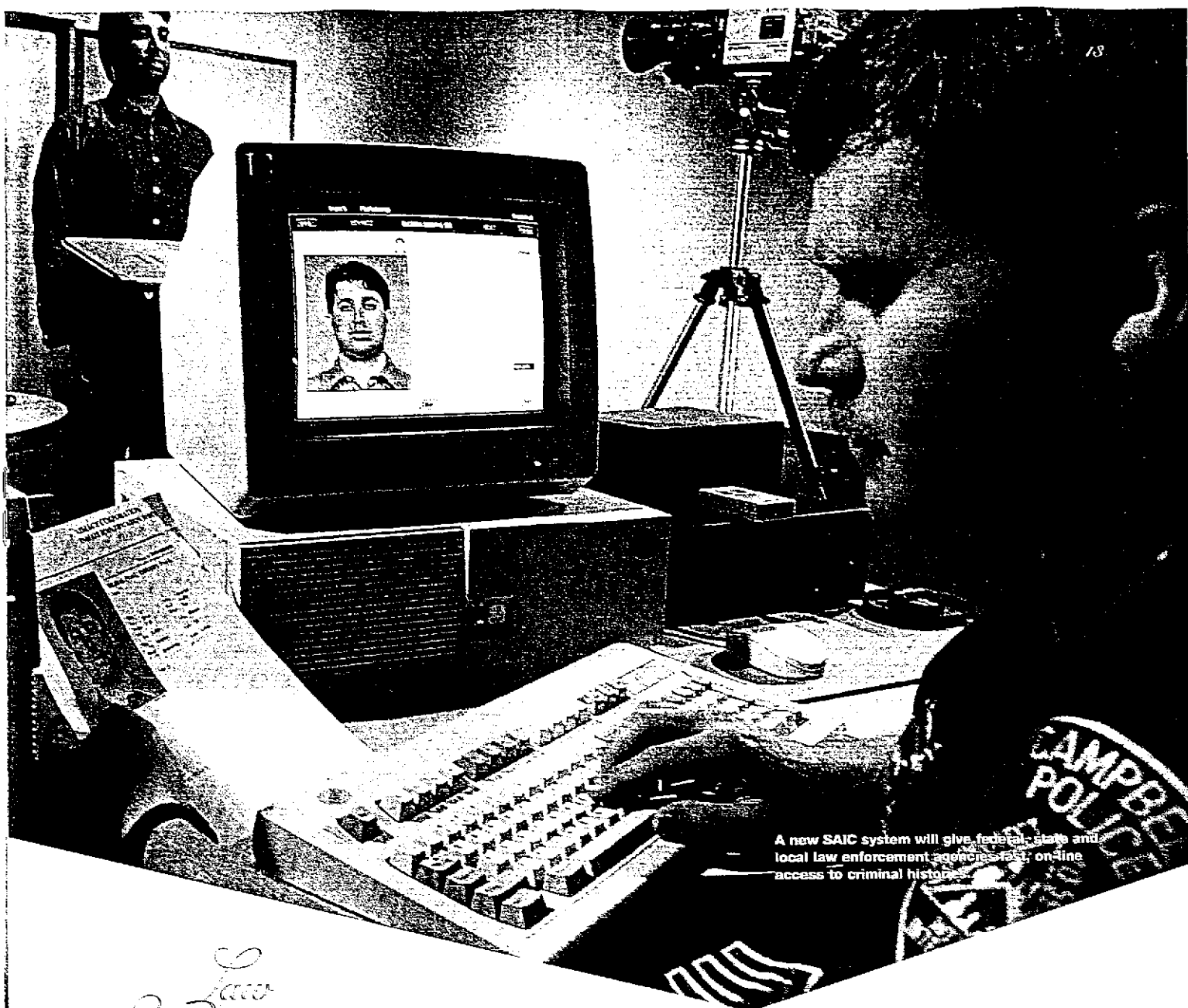
projectile that significantly increases mission effectiveness.

MILITARY PRODUCTS SAIC computer workstations serve on the frontlines for many military initiatives. Under a major contract awarded shortly after fiscal year end, SAIC will help develop the fourth generation of U.S. Navy tactical workstations to support the fleet and operating forces. The TAC-4 program will satisfy the requirements of systems commands, composite warfare/battle group commanders, and command centers for ruggedized computer equipment with local area networking, multi-level security, and data encryption. ▲ SAIC technology helped the U.S. Army take the first steps in providing digitized information across the battlefield. During Exercise Desert Hammer VI, our portable workstations, tactical commu-

nications interfaces, and communications software increased real-time situational awareness throughout the chain of command. All were developed under our Lightweight Computer Unit (LCU) contract. This year SAIC will deliver its 10,000th LCU to the U.S. Army. As the Army's first rugged portable computer supporting C² mission planning systems, LCUs were successfully deployed in Desert Storm and Operation Uphold Democracy. ▲ SAIC followed this success by winning the Army's first battlefield digitization procurement supporting mission program C⁴ systems, the Force-XXI Appliqué contract. Our technology will support the Army's goal of digitizing a brigade in 1996 and a division in 1997.



A satellite payload equipped with SAIC's miniature sensor technology will aid the U.S. Air Force in obtaining data needed to detect missile launch signatures.



A new SAIC system will give federal, state and local law enforcement agencies fast, online access to criminal history.

Law Enforcement

Law enforcement agencies are discovering the dramatic impact information technology can have on fighting crime. SAIC's commitment to law enforcement began 10 years ago when the FBI selected SAIC to integrate the first automated fingerprint identification system. SAIC technologies such as imaging and video, records and workflow management, and network integration make us a powerful ally for law enforcement agencies. This year the FBI chose SAIC to build the national criminal history system, called the Interstate Identification Index. SAIC

will migrate the old mainframe-based system to a modern client-server architecture. ... For the Georgia Department of Corrections, SAIC is designing an image-based electronic file system to manage offender records. The New York Police Department selected SAIC to integrate a distributed booking system that will allow the city to redeploy 300 officers from office duties to the field. For courts, SAIC's judicial video teleconferencing systems eliminate the risk and cost of transporting inmates to and from jails during the arraignment and probation processes.

Environment

Good service means not only delivering products and services on time and within budget, but also listening and acting on our customers' concerns. This attitude has helped us grow to over 2,500 environmental professionals and made SAIC one of the largest environmental consulting firms in the U.S.

POLLUTION PREVENTION Recognizing the importance of technology transfer in a pollution prevention strategy, SAIC helped the EPA develop the Pollution Prevention Information Exchange System. An on-line information service, PIES provides 24-hour, free access to multimedia technical and program information on pollution prevention alterna-

tives. ▲ While operating PIES, SAIC staff discovered numerous efforts by government and private entities to create data bases on pollution prevention associated with solvents. SAIC led a multiagency effort to combine the data bases into one comprehensive, user-friendly data base linked to PIES. This data base helps federal agencies and industry meet mandates prohibiting the use of specified toxic chemicals and ozone-depleting substances. ▲ Environmental protection also means the development and use of environmentally appropriate technologies to replace those that generate large

volumes of hazardous waste. Under contract with the Advanced Research Projects Agency, SAIC is developing an environmentally safe coating for wear and corrosion. This will replace coatings based on polymers, which produce volatile organic compounds and can be found on fighter aircraft, automobiles, electronics, and optical systems.

SITE RESTORATION / CLEANUP

To further expand our environmental capabilities, SAIC acquired R.E. Wright Associates, Inc., at year's end. An established remediation management contractor, R.E. Wright has more than 20 years of experience in environmental cleanup and compliance.



TECHNOLOGY DEVELOPMENT

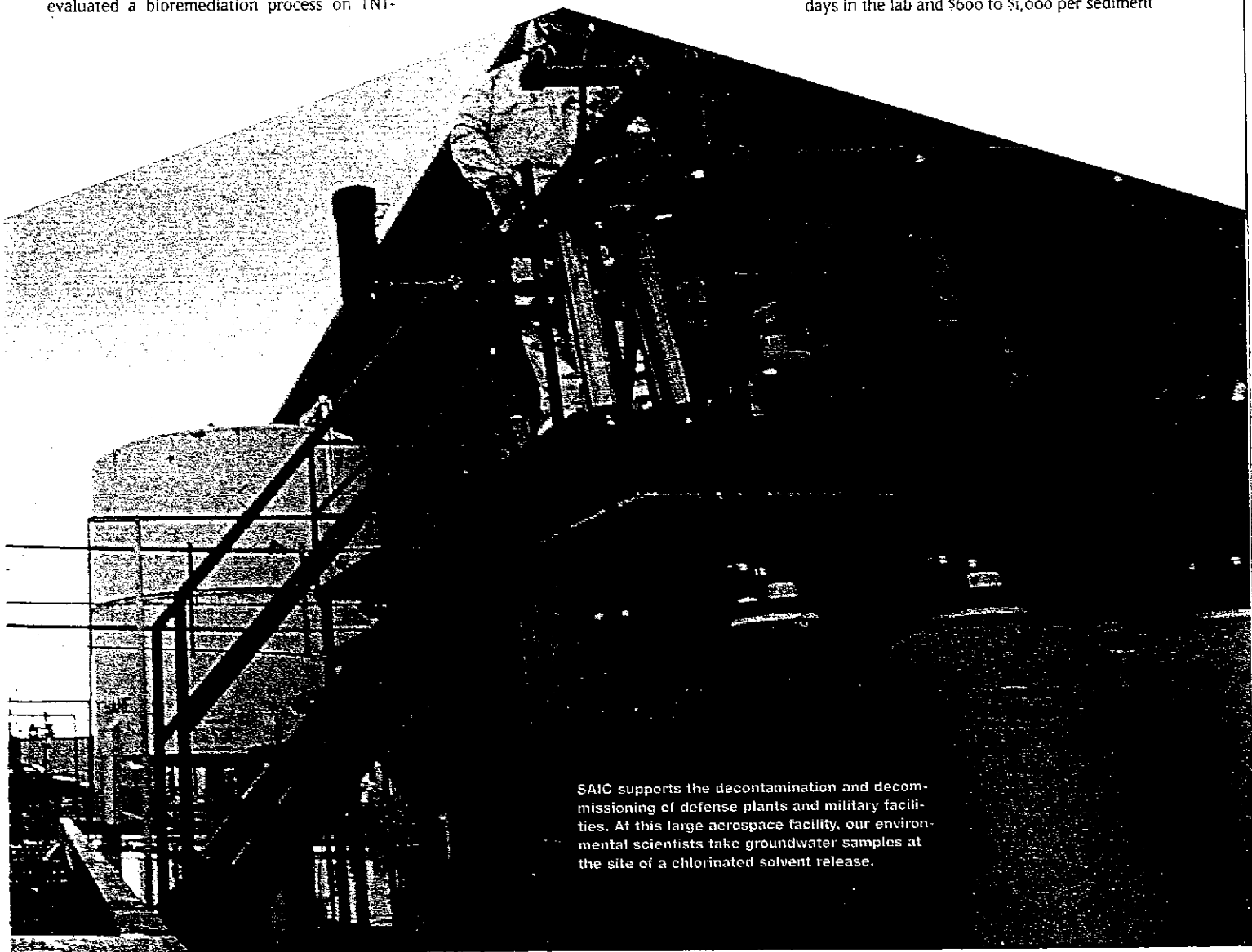
Identifying a technology that will successfully treat a hazardous waste can significantly reduce the time and cost of solving a specific environmental problem. SAIC has assessed the performance and economic feasibility of more than 300 technologies that treat different types of hazardous waste. We are currently evaluating biological processes that treat cyanide from abandoned mining sites and herbicides from crop dusting. For EPA's Superfund Innovative Technology Evaluation (SITE) Program, SAIC evaluated a bioremediation process on TNT-

contaminated soil at an abandoned munitions facility. Many old explosives plants and DoD facilities have high levels of TNT contamination. We confirmed that this technology could reduce TNT levels by more than 95%—a significant effect on a prevalent problem.

RISK ASSESSMENT Comparative risk assessments have proven invaluable in setting cleanup priorities. SAIC's innovative risk assessment techniques saved the DOE literally millions of dollars in cleanup costs at the Y-12 Plant

in Oak Ridge, Tennessee. As part of SAIC's remedial investigation and feasibility study, we conducted a baseline assessment to evaluate the risk of adverse health effects in humans and ecosystems. The results were key in selecting remedial alternatives and deriving cleanup goals that were technically feasible, cost effective and safe.

MARINE SCIENCES Characterizing hazardous waste in the sea floor presents its own set of challenges. Until now, traditional methods of chemical analysis meant several days in the lab and \$600 to \$1,000 per sediment



SAIC supports the decontamination and decommissioning of defense plants and military facilities. At this large aerospace facility, our environmental scientists take groundwater samples at the site of a chlorinated solvent release.

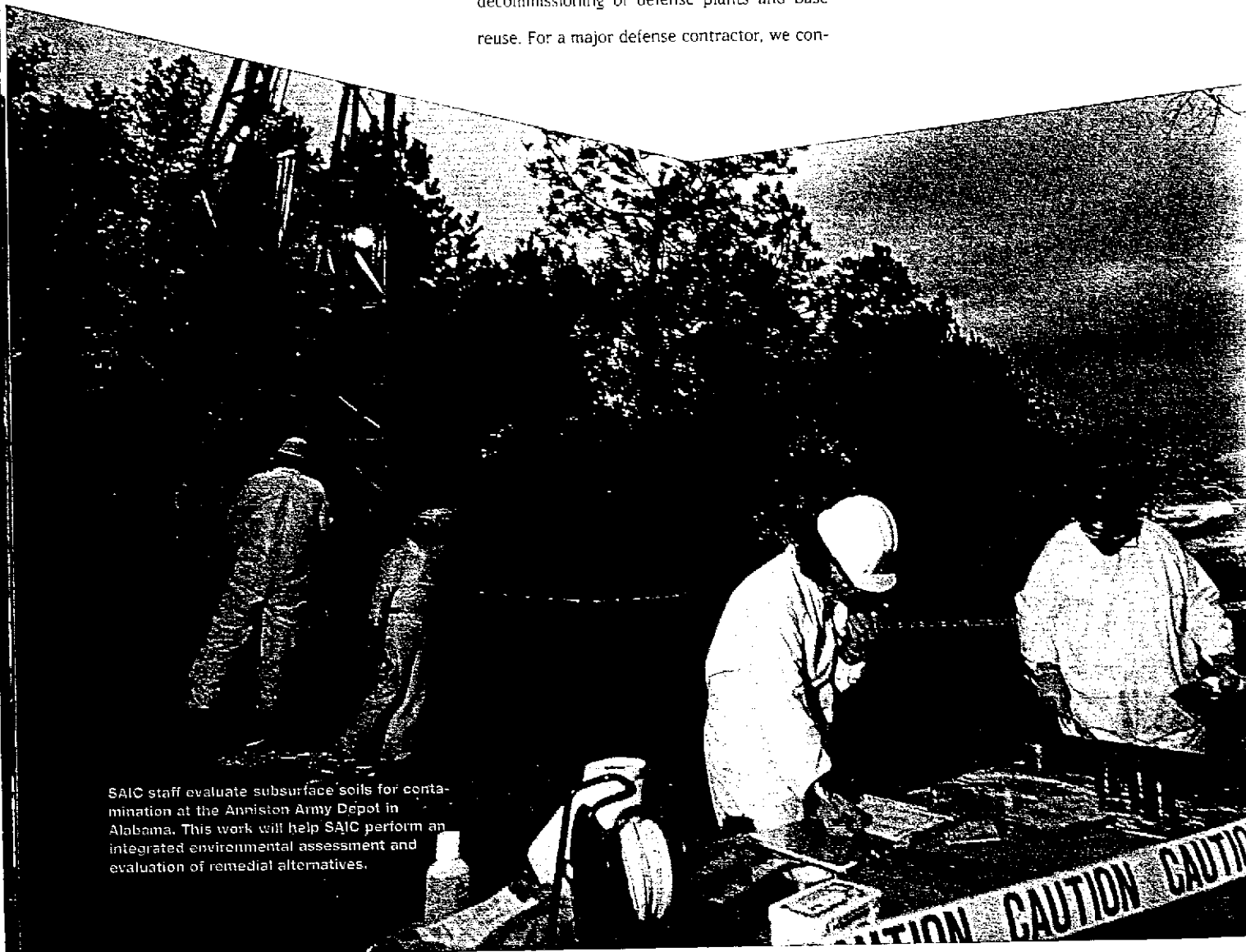
sample. SAIC's new REMOTS® spectrometer can identify hazardous hot spots in less than a minute—no more unnecessary sediment sampling or waiting on lab results. This pioneering technology uses ultraviolet imaging to rapidly screen prospective dredge sites, monitor disposal and fill areas, and evaluate oiled sediments. A valuable tool that combines sediment profile videography and computer image analysis, the new spectrometer can operate at depths up to 100 meters.

AIR QUALITY In response to one of the nation's most comprehensive environmental laws—the 1990 Clean Air Act—SAIC staff design innovative systems for tracking air-related data and emission inventories of toxic air pollutants. We then recommend technologies and procedures to control air pollution emission.

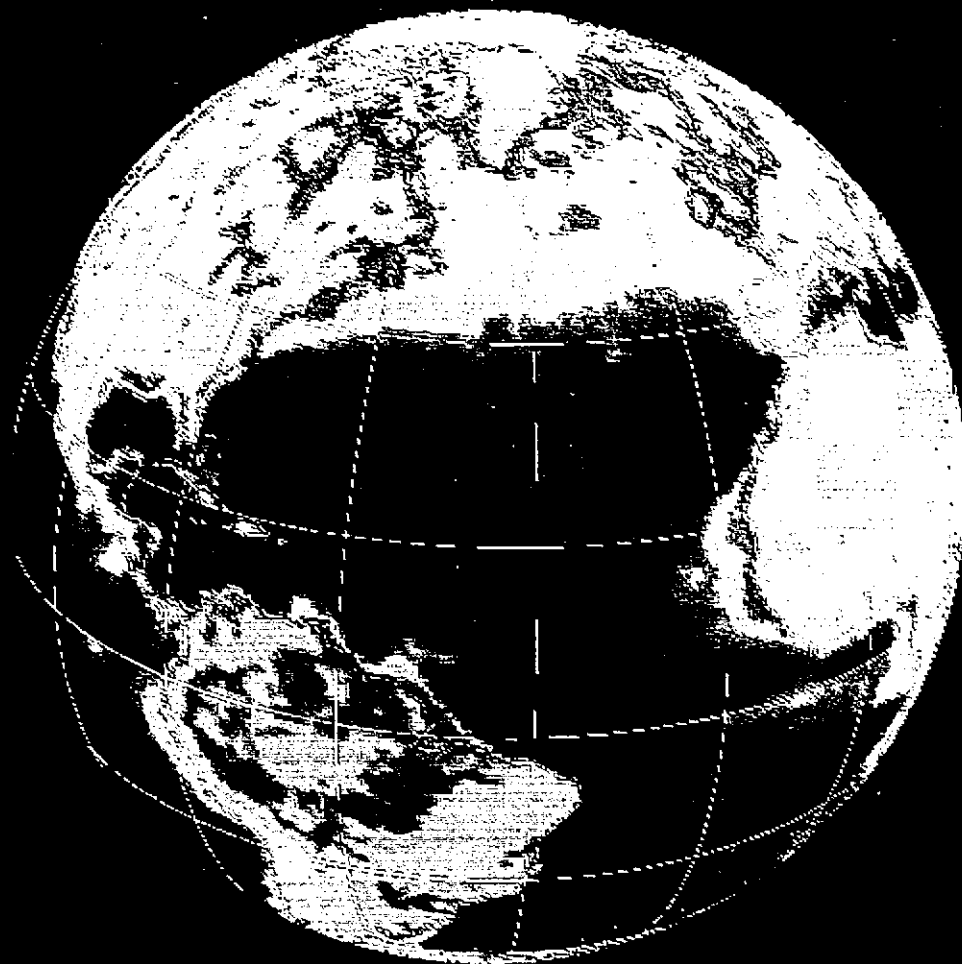
BASE CLOSURE AND REUSE In the wake of shrinking defense budgets, many military bases and defense contractors have been forced to close their doors. Our broad-based expertise supports the demolition and decommissioning of defense plants and base reuse. For a major defense contractor, we con-

ducted a broad investigation to help our customer close out outstanding environmental issues. SAIC has also helped design and implement reuse plans for scores of DoD and local government customers.

INFORMATION MANAGEMENT Last year, SAIC helped the EPA integrate a variety of legacy systems into one uniform multimedia system that simultaneously manages air, water and hazardous waste data. The EPA presented this system to President Clinton as one of the agency's key achievements for 1994.



SAIC staff evaluate subsurface soils for contamination at the Anniston Army Depot in Alabama. This work will help SAIC perform an integrated environmental assessment and evaluation of remedial alternatives.



Developed by our General Sciences Corporation subsidiary, this interactive 3-D visualization tool helps evaluate ocean biology for scientific research and fishing industries.

Responding to customer needs for accurate global information, SAIC's geospatial business increased dramatically in 1994. Much of this business success comes from applying existing technology in new ways. For the National Oceanic and Atmospheric Administration, SAIC successfully transferred technology used in the Defense Mapping Agency to create digital map displays for the National Weather Service. This large-scale, distributed system will present weather patterns with greater accuracy. For the U.S. Geological Survey, SAIC used DoD mapping technology to create the next generation of topographic maps. SAIC helped assess how

the federal government could potentially use remote sensing imagery, including imagery from commercial and international sources. Our staff is working with civil and defense agencies to identify cost-effective imagery solutions for mapping, land use planning, and environmental problems. To understand global climatic changes, SAIC's subsidiary, General Sciences Corporation, supports NASA's Mission to Planet Earth. Using specialized visible and infrared sensors, microwave imaging, and radar technology, GSC researches oceanic, atmospheric, and land processes observed from ground and space platforms.

Energy

Deregulation of the utility industry continues to influence the marketplace with tighter budgets and increased scrutiny on project justification. SAIC's ability to anticipate the needs of our customers and create cost-effective, workable solutions that address those needs has earned us a reputation as a trusted partner to the utility industry for more than 22 years. We have demonstrated a proactive approach that helps meet our customers' evolving requirements.

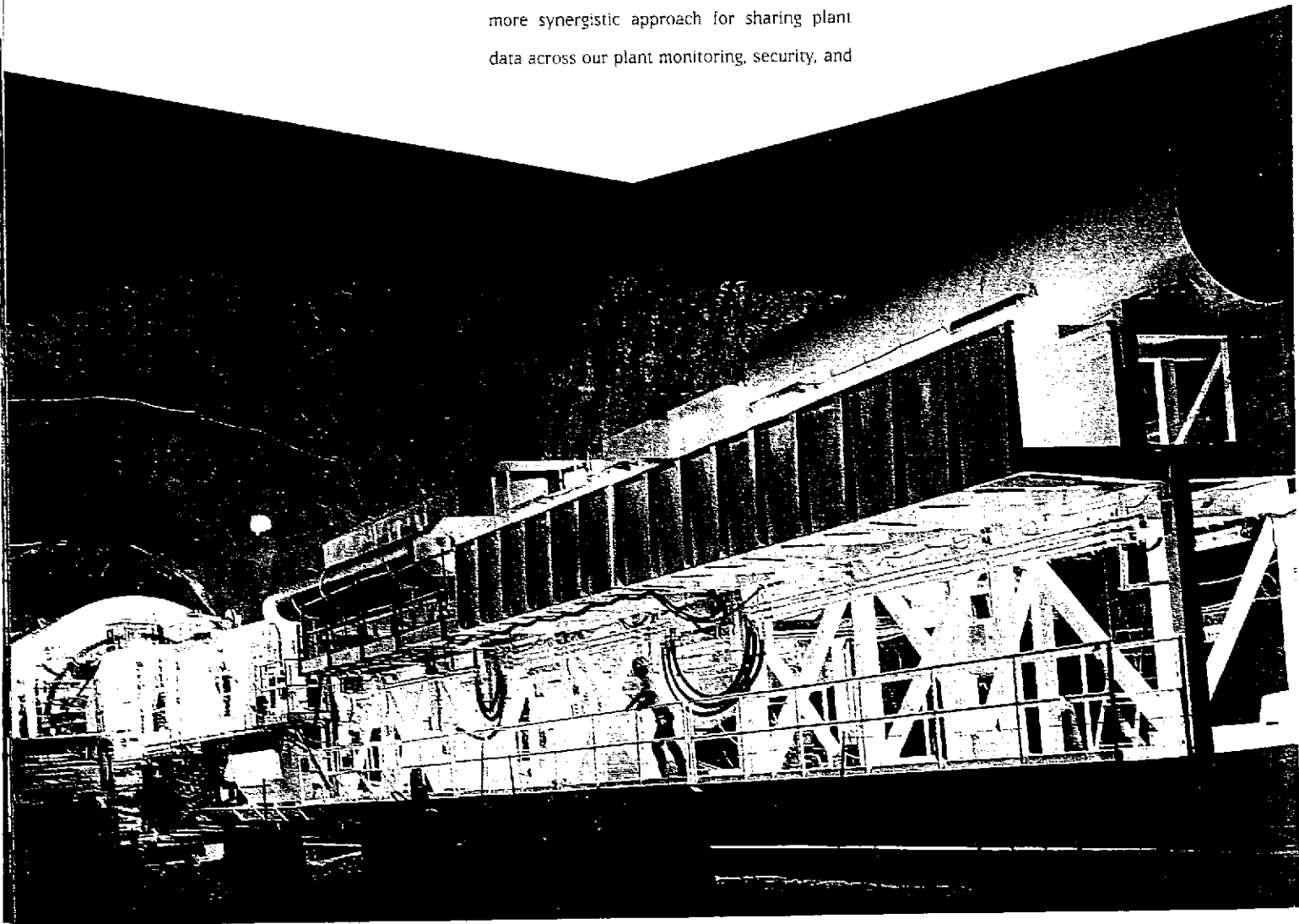
PLANT INFORMATION SYSTEMS

When our utility customers replace or upgrade plant monitoring systems, SAIC's experienced project teams can develop complete solutions

that meet their requirements now and into the future. SAIC focuses on maximum performance and expandability while minimizing risk and system downtime. This year Duke Power Company awarded SAIC one of the largest contracts to date to replace plant process computers in the nuclear utility industry. Pennsylvania Power & Light also chose SAIC to replace existing process monitoring computer systems at its Susquehanna plant. SAIC is already working on the next generation of plant systems by moving our core products to a cohesive, yet modular, architecture based on the Windows NT™ operating system. This move will create a more synergistic approach for sharing plant data across our plant monitoring, security, and

supervisory control and data acquisition systems. SAIC also designed QSD Performa, the software solution that helps utilities access numerous multilanguage data bases to collect, analyze and report maintenance data. Δ Our nuclear energy expertise is helping upgrade power plant systems in Eastern Europe and Russia. Last year, we installed a real-time risk management system for the Dukovany Plant in the Czech Republic.

PLANT SAFETY SAIC is committed to helping make process industries safer and more efficient. This work has made SAIC a recognized



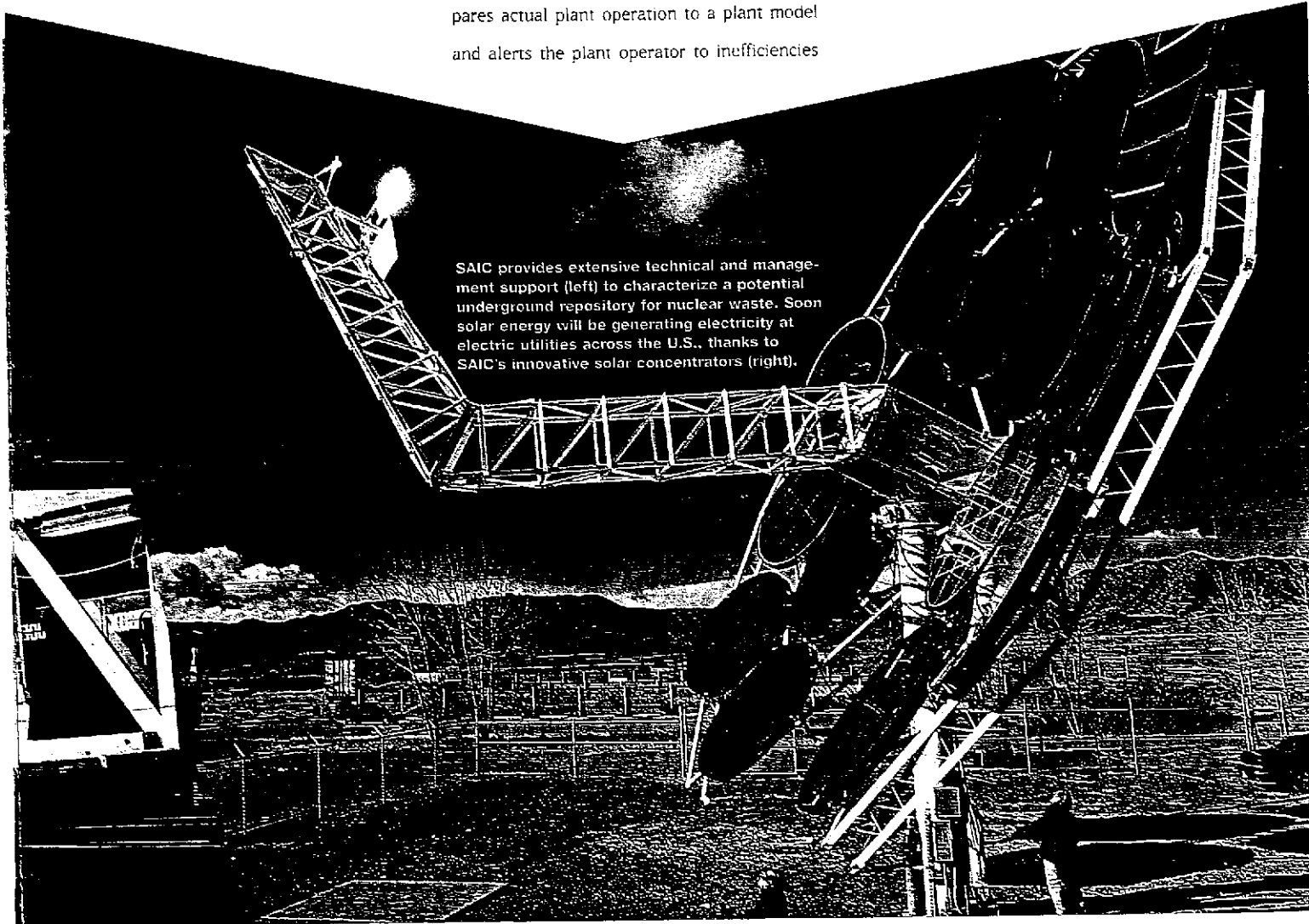
leader in process hazards analysis and the atmospheric dispersion modeling of hazardous chemicals. Process managers rely on SAIC safety experts to help identify deficiencies in physical plant and management systems. A new SAIC system helps plants address OSHA regulations and EPA's proposed Risk Management Plan. This flexible software solution can be customized to various plant-specific management programs across the process industries. ▲ In a joint project with a U.S. nuclear utility, SAIC is developing the next generation of training simulators using safety analysis codes in real time. These

simulators will greatly enhance operator training and interactive safety analysis review.

ENERGY EFFICIENCY SAIC won a major follow-on contract this year with the Pittsburgh Energy Technology Center, one of DOE's fossil energy research laboratories. Our information systems and engineering services will augment PETC's research into coal liquefaction and combustion, magnetohydrodynamics, and environmental control technology. ▲ SAIC has identified the benefits of using neural networks and expert systems to optimize energy usage. Our neural net system installed at San Diego Gas & Electric's Encina Power Plant compares actual plant operation to a plant model and alerts the plant operator to inefficiencies

and potential subsystem problems. SAIC has also developed a PC-based software package that operates on top of a building's energy management system to control thermal loads and load leveling. Another software tool from SAIC, DTECT, will help gas and electric utilities better detect theft or meter malfunction.

PRIVATIZATION / REUSE Over the past two years, SAIC staff have assisted the United States Enrichment Corporation in promoting privatization and energy reuse initiatives. Our expertise helps agencies smooth the transition from government to free market operations.



SAIC provides extensive technical and management support (left) to characterize a potential underground repository for nuclear waste. Soon solar energy will be generating electricity at electric utilities across the U.S., thanks to SAIC's innovative solar concentrators (right).

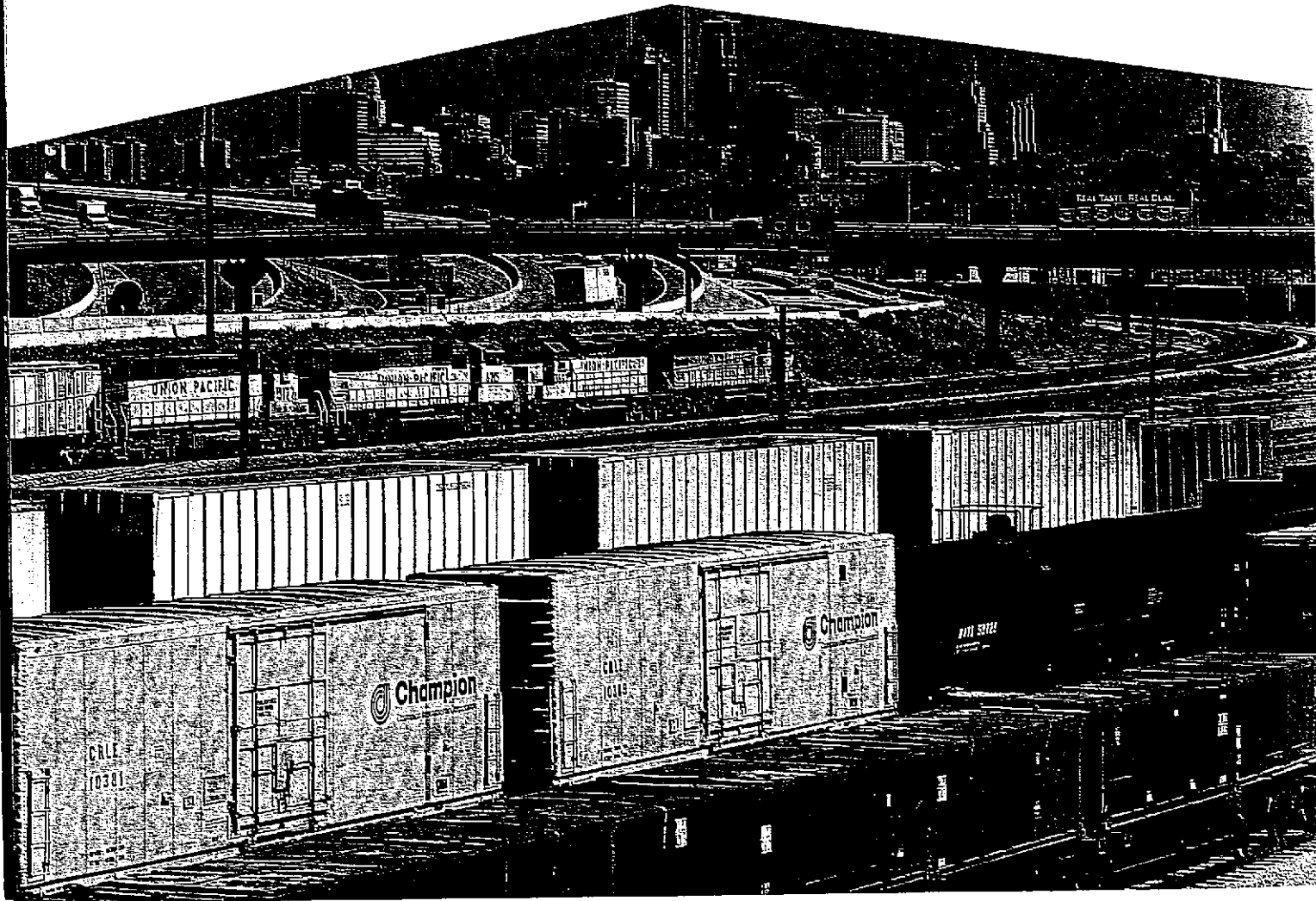
Transportation

Capping a banner year in transportation projects, SAIC consolidated most of its transportation business into a new sector. This move reflects both our strong commitment to and the substantial growth in this area.

SURFACE TRANSPORTATION Our transportation clients, particularly trucking and railroad companies, face increasing competitive pressure to improve their service reliability and cut costs. In response, we are designing and developing a shipment management system to help one of the largest U.S. railroads better manage shipments for its customers. The system will help the railroad be more accurate and responsive to its customers with timely infor-

mation about the scheduling, delivery and invoicing of their shipments. The system uses information provided by automatic equipment identification (AEI) technology and weigh-in-motion scales to manage railroad cars and shipments more efficiently. We began developing this system shortly after fiscal year end. Δ Our Syntonic subsidiary now stands as the leading provider of AEI systems on the North American continent. Syntonic staff have installed the vast majority of rail reader sites in North America. Our AEI systems integrate equipment tags on containers and vehicles with antennas, radio

frequency readers, and powerful software. Δ Expanding into other markets, such as intermodal yard management and ports, Syntonic recently installed AEI systems for the in/out gates at two major Union Pacific intermodal yards. Compared to our high-power systems, built for trains moving up to 80 mph, our new low-speed systems for intermodal yards are easier to install and more affordable. Δ Syntonic also installed several major automobile toll systems, and began new projects such as the 34-lane system for Dulles Greenway in Northern Virginia. These automated systems generate revenues to pay for roads, bridges and tunnels, and they speed the flow of traffic.

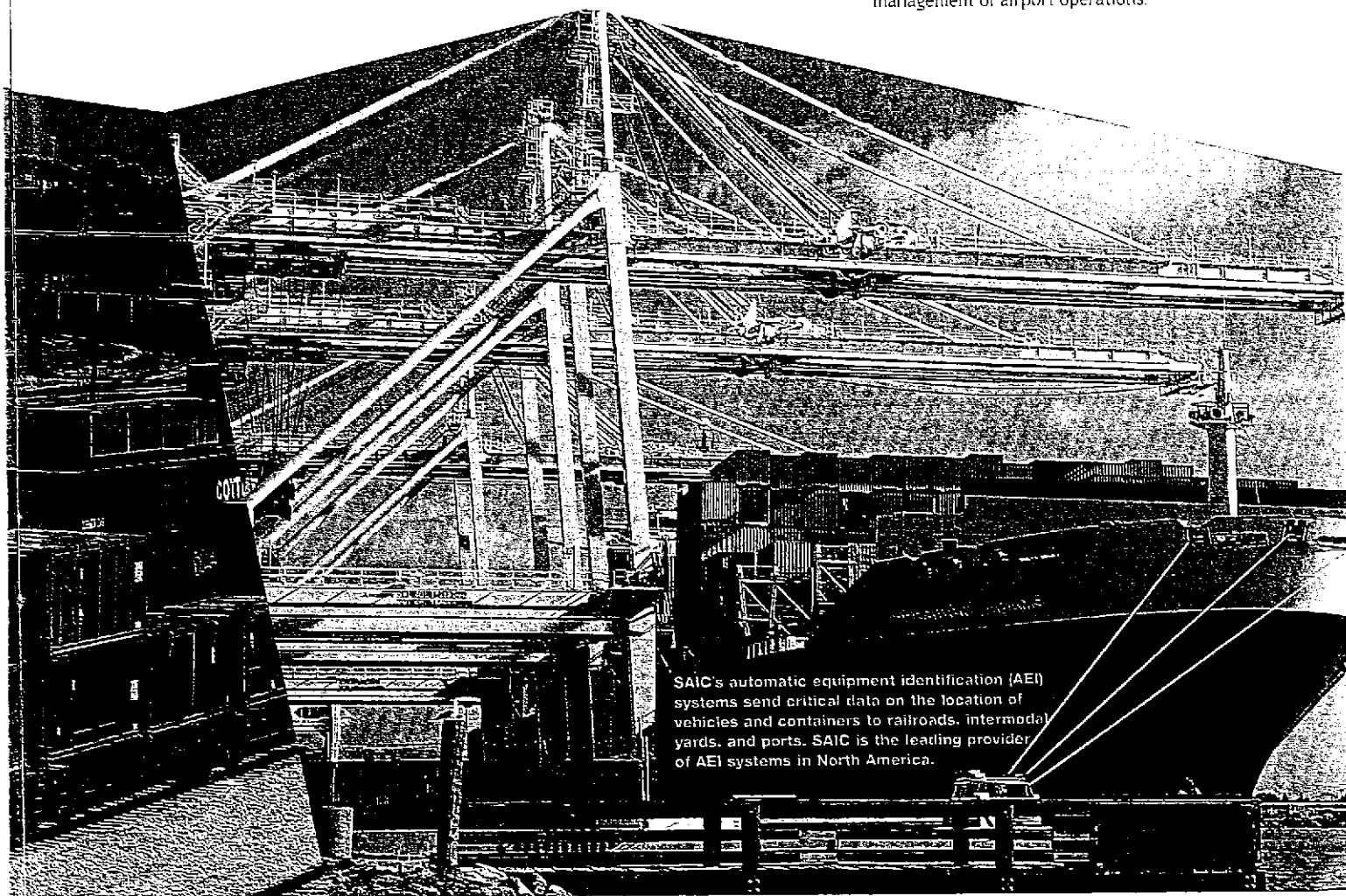


▲ A leader in Intelligent Transportation Systems, our JHK subsidiary offers the most experience of any North American firm in several major ITS areas. JHK's latest projects include ITS operational tests for the Genesis system (Minnesota Department of Transportation), and the Seattle Wide-Area Information For Travelers or SWIFT system (Washington State DOT). ▲ Building on this ITS experience, JHK is stretching the state of practice in congestion management. This work encompasses transportation planning, traffic operations, multimodal strategy development, interagency coordination, and air quality. Since starting this work in 1990, JHK has helped more than 25

states and 40 metropolitan areas. JHK also directed the bellwether Los Angeles Smart Corridor project, which served as a major tool in handling congestion caused by the collapse of freeway sections in the Los Angeles/Northridge earthquake in 1994.

AVIATION Civil aviation agencies also see the need for more efficient operation in the face of increasing demand. Committed to offering its customers total transportation solutions, SAIC acquired Systems Control Technology, a firm that develops and modernizes civil aviation and national airspace systems. Serving the Federal

Aviation Administration since 1972, our new staff began a major FAA project to provide systems engineering support on navigation and landing systems. ▲ In addition, SAIC won a contract to integrate critical aeronautical information from a wide variety of National Airspace System resources into a single system. This new system will help the FAA expedite air traffic flow while helping maintain its exemplary safety record. ▲ Building on our work for the new Denver International Airport, SAIC developed the concept for an integrated airport ground-side operating system, linking major airport information systems to a common technology core and supporting more effective real-time management of airport operations.



SAIC's automatic equipment identification (AEI) systems send critical data on the location of vehicles and containers to railroads, intermodal yards, and ports. SAIC is the leading provider of AEI systems in North America.

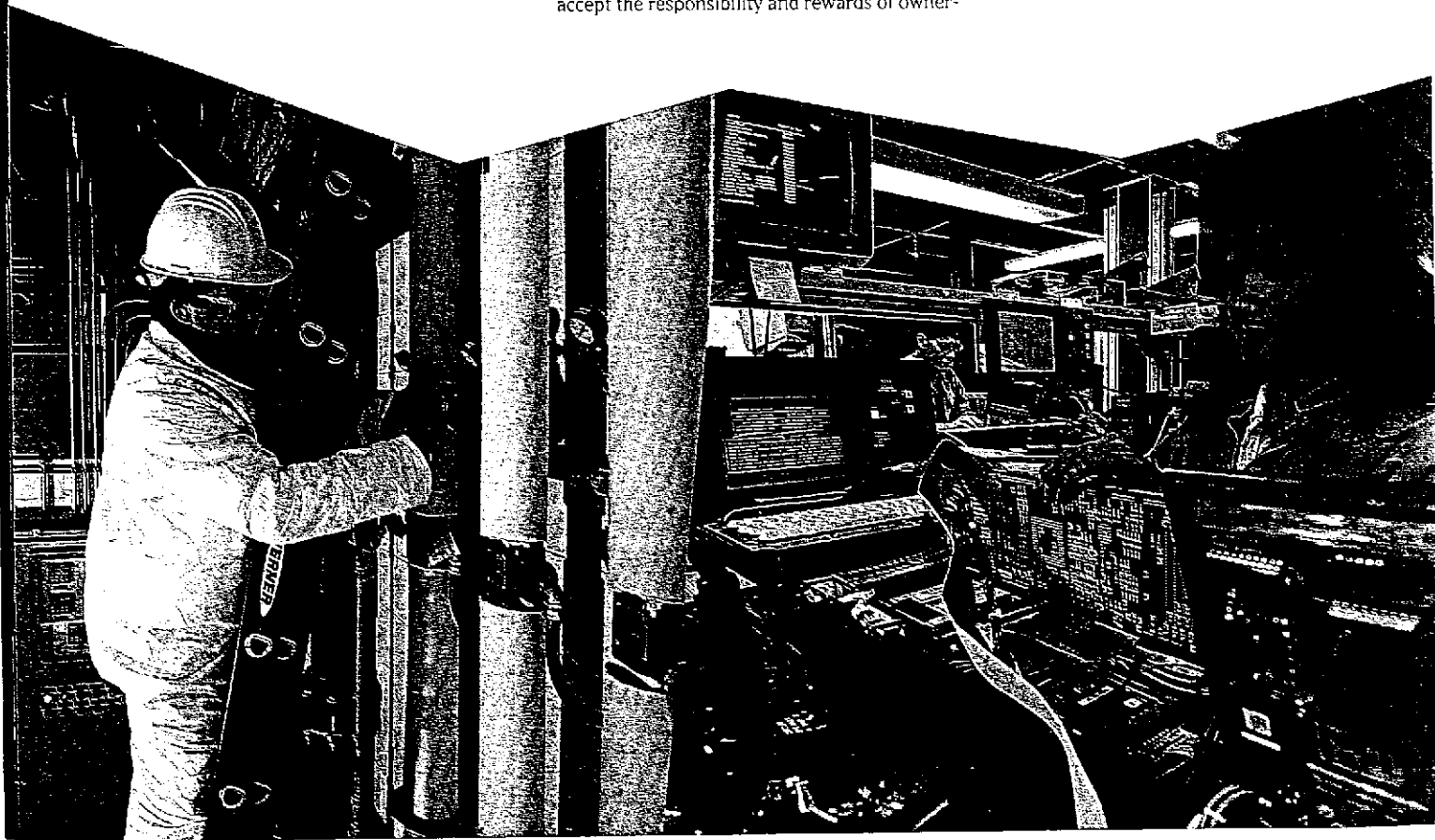
Our Team

SAIC's reputation for high-quality performance has been achieved through the creativity, expertise and experience of its people. The company attracts, motivates and retains recognized technical leaders and encourages them to build businesses within the company. SAIC supports these technical leaders with teams of people possessing outstanding skills in the technical, marketing, management, and administrative areas. ▲ We believe this concept of staffing for excellence and teamwork provides the best value to our customers. It also allows us more flexibility in meeting changing customer needs. To this end, SAIC fosters an environment that encourages employees to pursue challenging work, to grow professionally, and to reap the rewards of ownership in a financially successful

and growing company. ▲ At the heart of this successful, entrepreneurial culture lies our system of employee ownership. A key factor in SAIC's success, employee ownership provides the incentives for outstanding performance. It also allows the company to make the best decisions for its future, free from the influence of outside investors motivated solely by short-term financial interests. ▲ Our ownership structure is at the leading edge of an international employee-ownership movement. Companies as far away as the former Soviet Union have used SAIC as a model for their own employee-ownership structures.

SAIC STOCK SAIC's stock system has been based on one simple concept: the idea that those who contribute to the company should own it. To encourage employees to accept the responsibility and rewards of owner-

ship, the company has established several stock acquisition methods that are available to all employees. Our employees purchase stock directly or acquire stock through bonuses and stock options as recognition for their achievements. Employees also receive and buy shares through SAIC retirement plans. Our employees and their families own about 89% of our stock either directly or through SAIC retirement plans. ▲ SAIC stock does not trade on any national exchange. The company's Board of Directors determines the stock price with the assistance of an independent appraiser. In establishing the price, the Board uses a formula which takes into account net income, stockholders' equity, number of shares outstanding, and a market factor that reflects relevant out-



OCCUPATIONAL CATEGORY		YEARS OF EXPERIENCE		ACADEMIC DEGREE LEVEL		ACADEMIC DEGREE DISCIPLINE	
Technical Professional	76%	More than 10 years	69%	Ph.D.	10%	Sciences	43%
Managerial	13%	5-10 years	21%	M.S.	36%	Engineering	26%
Administrative Professional	11%	Less than 5 years	10%	B.S.	54%	Business/Economics/Law	17%
				*Degree holders represent 77% of the staff		Humanities/Social Sciences	14%

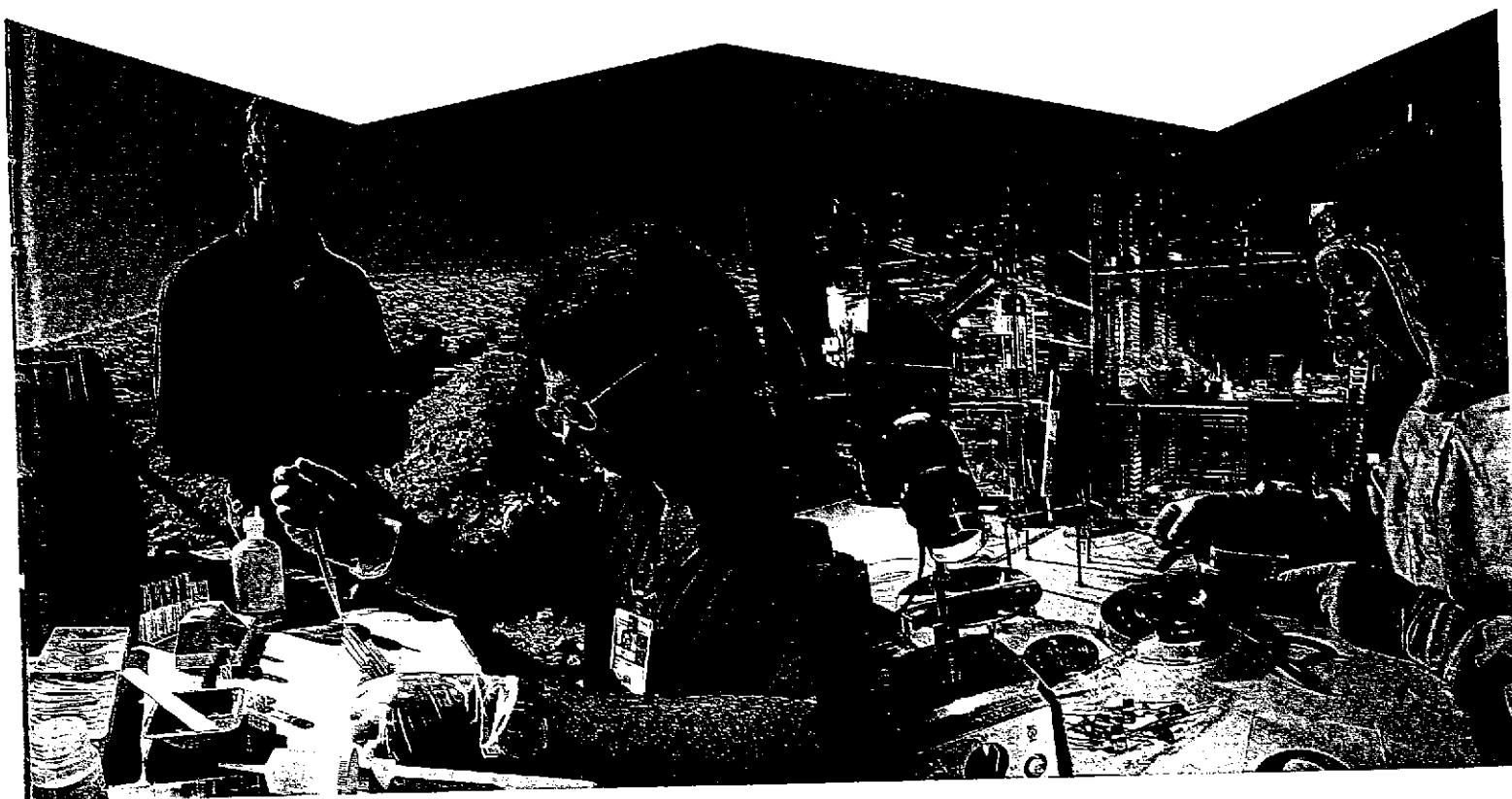
side securities market conditions. The price for SAIC Class A Common Stock was \$15.72 per share on January 31, 1995, an increase of 10.8% from \$14.19 per share on January 31, 1994. Bull Inc., a subsidiary of SAIC, conducts internal market trades four times a year, which provide limited liquidity. In fiscal year 1995, Bull, Inc. traded over 1.4 million shares worth over \$21 million.

EMPLOYEE BENEFITS SAIC supports its employees with a variety of benefit choices designed to suit their needs and the needs of their families. Eligible employees may choose between SAIC self-insured medical plans and health maintenance organizations at most loca-

tions. The company also offers eligible employees programs for dental insurance, life insurance, disability coverage, comprehensive leave, holidays, tuition reimbursement, and accident and business travel insurance. In fiscal year 1995, SAIC contributed more than \$183 million to these benefit plans.

RETIREMENT PLANS A variety of SAIC plans help employees finance their retirement. Eligible employees can take advantage of our Profit Sharing Retirement Plan, Employee Stock Ownership Plan, and 401(k) Plan with a compa-

ny matching contribution (called CODA). Together these plans achieved an average annual return for 1994 of just over 6% while their overall assets grew nearly 14% to \$761 million. During the year, the company contributed about \$49 million to these plans. ▲ Employees invest their retirement assets in SAIC stock and in mutual funds provided by the Vanguard Group of Investment Companies. The funds offer a choice of investment vehicles and provide individual control over investment alternatives. As of December 31, 1994, the retirement plans held approximately 47% of the total outstanding shares of SAIC common stock.



Directors



J.R. BEYSTER
Chairman of the Board and
Chief Executive Officer, SAIC



L.A. KULL
President and Chief Operating
Officer, SAIC



A.L. ALM
Sector Vice President, SAIC



V.N. COOK
Chairman, Visions
International, Inc.



S.J. DALICH
Executive Vice President, SAIC



C.K. DAVIS
International Health Care
Consultant



W.H. DEMISCH
Managing Director, BT
Securities Corp.



E.A. FRIEMAN
Director, Scripps Institution of
Oceanography; Vice Chancellor
of Marine Sciences, UCSD



J.E. GLANCY
Corporate Executive Vice
President, SAIC



F. HERWOOD
SAIC Director Emeritus



D.A. HICKS
Chairman, Hicks & Associates,
a subsidiary of SAIC



B.R. INMAN
Admiral, USN (Ret.)



D.M. KERR
Corporate Executive Vice
President, SAIC



M.R. LAIRD
Senior Counselor, National
and International Affairs, The
Readers Digest Association,
Inc.



W.M. LAYSON
Senior Vice President, SAIC



C.B. MALONE
President, Financial &
Management Consulting Inc.



J.W. McRARY
President and Chief Executive
Officer, Microelectronics and
Computer Technology Corp.



B.J. SHILLITO
SAIC Director Emeritus



E.A. STRAKER
Executive Vice President, SAIC



M.R. THURMAN
General, USA (Ret.)



M.E. TROUT
Chairman Emeritus,
American Healthcare
Systems



J.H. WARNER, JR.
Executive Vice President,
SAIC



J.A. WELCH
General, USAF (Ret.)



J.B. WIESLER
Vice Chairman, Bank of
America (Ret.)



W.E. ZISCH
SAIC Director Emeritus

Financial

C O N T E N T S



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CONSOLIDATED STATEMENT OF INCOME

	Year ended January 31		
	1995	1994	1993
	<i>(in thousands, except per-share amounts)</i>		
Revenues	\$1,921,880	\$1,670,882	\$1,504,112
Costs and expenses:			
Cost of revenues	1,692,623	1,477,701	1,327,992
Selling, general and administrative expenses	146,083	120,387	113,174
Interest expense	3,468	2,966	2,841
	1,842,174	1,601,054	1,444,007
Income before income taxes	79,706	69,828	60,105
Provision for income taxes	30,654	28,328	22,030
Net income	\$ 49,052	\$ 41,500	\$ 38,075
Earnings per share	\$ 1.01	\$.89	\$.83
Average number of shares outstanding, including common stock equivalents	49,264	47,429	46,179

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED BALANCE SHEET

January 31

1995

1994

*(in thousands)***ASSETS****- Current assets:**

Cash and cash equivalents	\$ 28,203	\$ 53,556
Receivables	421,790	356,836
Inventories	25,356	14,764
Prepaid expenses	13,647	10,354
Deferred income taxes	20,536	22,083

Total current assets

509,532 457,593

Property and equipment	57,715	50,581
Land and buildings	88,997	69,161
Intangible assets	56,214	17,485
Other assets	40,126	16,755

\$752,584 \$611,575**LIABILITIES AND STOCKHOLDERS' EQUITY****Current liabilities:**

Accounts payable and accrued liabilities	\$191,429	\$133,433
Accrued payroll and employee benefits	124,745	106,548
Income taxes payable	18,409	9,889
Notes payable and current portion of long-term liabilities	1,482	1,143

Total current liabilities

336,065 251,013

Long-term liabilities

28,955 25,060

Stockholders' equity, per accompanying statement:

Class A common stock, \$.01 par value	452	443
Class B common stock, \$.05 par value	17	19
Additional paid-in capital	198,052	172,713
Retained earnings	189,043	162,327

Total stockholders' equity

387,564 335,502

Commitments and contingencies (Note K)**\$752,584 \$611,575**

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

	Common Stock				Additional paid-in capital	Retained earnings
	Class A		Class B			
	100,000,000 shares authorized		5,000,000 shares authorized			
	Shares	Amount	Shares	Amount		
	<i>(in thousands)</i>					
Balance at January 31, 1992:	41,501	\$415	412	\$21	\$110,238	\$124,513
Issuances of common stock	3,311	33			29,962	
Repurchases of common stock	(2,093)	(21)	(40)	(2)	(6,055)	(19,600)
Income tax benefit from employee stock transactions					2,468	
Net income						38,075
Balance at January 31, 1993:	42,719	427	372	19	136,613	142,988
Issuances of common stock	3,922	39			40,196	
Repurchases of common stock	(2,326)	(23)	(8)		(7,873)	(22,161)
Income tax benefit from employee stock transactions					3,777	
Net income						41,500
Balance at January 31, 1994:	44,315	443	364	19	172,713	162,327
Issuances of common stock	2,994	30			30,138	
Repurchases of common stock	(2,066)	(21)	(21)	(2)	(8,356)	(22,336)
Income tax benefit from employee stock transactions					3,557	
Net income						49,052
Balance at January 31, 1995	45,243	\$452	343	\$17	\$198,052	\$189,043

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended January 31		
	1995	1994	1993
	(in thousands)		
Cash flows from operating activities:			
Net income	\$ 49,052	\$ 41,500	\$38,075
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	27,738	23,127	21,815
Non-cash compensation	9,898	8,831	7,830
Loss on disposal of property and equipment	1,583	706	1,397
Loss on disposal of land and building			253
Increase (decrease) in cash, excluding effects of acquisitions, resulting from changes in:			
Receivables	(42,623)	(10,438)	(25,274)
Inventories	(4,477)	1,262	452
Prepaid expenses	(2,129)	(1,149)	268
Progress payments	11,443	(2,243)	(16,951)
Deferred income taxes	1,547	(9,584)	(6,436)
Other assets	(8,280)	(740)	(1,922)
Accounts payable and accrued liabilities	44,734	15,392	32,640
Accrued payroll and employee benefits	16,538	18,952	14,977
Income taxes payable	12,077	23	9,017
	117,101	-85,639	76,141
Cash flows from investing activities:			
Expenditures for property and equipment	(20,188)	(18,420)	(17,791)
Expenditures for land and buildings	(15,437)	(9,012)	(2,093)
Acquisitions of certain business assets, net of cash acquired	(71,109)	(14,161)	(17,514)
Proceeds from disposal of property and equipment	297	566	781
Purchase of debt securities held to maturity	(13,913)	(6,187)	
	(120,350)	(47,214)	(36,617)
Cash flows from financing activities:			
Net repayments under revolving credit agreements			(17,200)
Decrease in notes payable and long-term liabilities	(8,810)	(3,452)	(4,726)
Sales of common stock	17,421	32,651	23,509
Repurchases of common stock	(30,715)	(30,057)	(25,678)
	(22,104)	(858)	(24,095)
(Decrease) increase in cash and cash equivalents	(25,353)	37,567	15,429
Cash and cash equivalents at beginning of year	53,556	15,989	560
Cash and cash equivalents at end of year	\$ 28,203	\$ 53,556	\$ 15,989
Supplemental schedule of noncash investing and financing activities:			
Issuance of common stock for acquisitions of certain business assets	\$ 5,282		
Liabilities assumed in acquisitions of certain business assets	\$ 25,532	\$ 4,107	\$ 6,881

SEE ACCOMPANYING NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS*Note A — Summary of Significant Accounting Policies:***Consolidation**

The consolidated financial statements of the Company include the accounts of Science Applications International Corporation and its subsidiaries. All significant intercompany transactions and accounts have been eliminated in consolidation. Investments in affiliates and corporate joint ventures owned twenty to fifty percent are accounted for under the equity method. Other investments are generally carried at cost.

Contract revenues

The major portion of the Company's revenues results from contract services performed for the United States Government or from subcontracts with other contractors engaged in work for the United States Government under a variety of contracts, some of which provide for reimbursement of cost plus fees and others which are fixed-price or time-and-materials type contracts. Generally, revenues and fees on contracts are recognized as services are performed, using the percentage-of-completion method of accounting, primarily based on contract costs incurred to date compared with total estimated costs at completion. Revenues from the sale of manufactured products are recorded when the products are shipped.

The Company provides for anticipated losses on contracts by a charge to income during the period in which the losses are first identified. Unbilled receivables are stated at estimated realizable value. Contract costs, including indirect costs, are subject to audit and adjustment by negotiations between the Company and government representatives. The majority of the Company's indirect contract costs have been agreed upon through 1991 and substantially all of the Company's indirect contract costs have been agreed upon through 1990. Contract revenues have been recorded in amounts that are expected to be realized upon final settlement.

Cash and cash equivalents

Cash equivalents are highly liquid investments purchased with an original maturity of three months or less. Of the \$28,203,000 total cash and cash equivalents at January 31, 1995, \$24,382,000 was invested in commercial paper. The carrying amounts approximate fair value due to the short maturity of these instruments.

Inventories

Inventories are valued at the lower of cost or market. Cost is determined using the moving average and first-in, first-out methods.

Buildings, property and equipment

Depreciation and amortization of buildings and related improvements are provided using the straight-line method over estimated useful lives of thirty to forty years and ten years, respectively. Depreciation and amortization of property and equipment are provided over the estimated useful lives of the assets, primarily using a declining-balance method. The useful lives are three to ten years for equipment and the shorter of the useful lives or the terms of the leases for leasehold improvements.

Additions to property and equipment together with major renewals and betterments are capitalized. Maintenance, repairs and minor renewals and betterments are charged to expense. When assets are sold or otherwise disposed of, the cost and related accumulated depreciation or amortization are removed from the accounts and any resulting gain or loss is recognized.

Debt securities

Effective February 1, 1994, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities" prospectively. Adoption of SFAS No. 115 did not have an effect on the Company's financial position or results of operations in 1995. Long-term debt securities are included in other assets and consist of long-term municipal bonds which have been recorded at amortized cost and classified as "held-to-maturity." As of January 31, 1995, debt securities of \$20,100,000 had a fair value of \$19,488,000 maturing between 1996 and 1998. Gross unrealized losses amounted to \$612,000.

Intangible assets

Intangible assets consist primarily of goodwill. Goodwill represents the excess of the purchase cost over the fair value of net assets acquired in an acquisition and is amortized by a straight line method generally over five to ten years. Amortization of intangible assets amounted to \$6,257,000, \$3,007,000 and \$1,859,000 in 1995, 1994 and 1993, respectively. Accumulated amortization was \$15,987,000 and \$9,730,000 at January 31, 1995 and 1994, respectively.

Income taxes

Income taxes are provided utilizing the liability method under SFAS No. 109. The liability method requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities. Additionally, under the liability method, changes in tax rates and laws will be reflected in income in the period such changes are enacted.

Common stock and earnings per share

Class A and Class B common stock are collectively referred to as common stock in the Notes to Consolidated Financial Statements unless otherwise indicated.

Computations of earnings per share are based on the weighted average number of shares of common stock outstanding, increased by the effect of dilutive options using the modified treasury stock method. Fully diluted earnings per share was substantially the same as primary earnings per share in 1995, 1994 and 1993.

A general public market for the Company's common stock does not exist. Periodic determinations of the fair market value of the common stock are made by the Board of Directors pursuant to a stock price formula and valuation process which includes an appraisal prepared by an independent appraisal firm. The Board of Directors reserves the right to alter the formula and valuation process.

Other financial instruments

In October 1994, SFAS No. 119, "Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments," was issued. The Company has adopted the disclosure requirements of SFAS No. 119 for the year ended January 31, 1995.

It is the Company's policy not to enter into derivative financial instruments for speculative purposes. During 1995, the Company entered into foreign currency forward exchange contracts to protect against currency exchange risks associated with certain firm and identifiable foreign currency commitments entered into in the ordinary course of business. At January 31, 1995, the Company had approximately \$5,066,000 of foreign currency forward exchange contracts in Australian dollars and Spanish pesetas outstanding with net unrealized losses of \$98,000. These contracts were executed with creditworthy banks for terms of less than eight months.

Concentration of credit risk

Financial instruments which potentially subject the Company to concentrations of credit risk consist principally of cash equivalents and long-term investments. The Company invests its excess cash principally in U.S. Government and municipal debt securities and commercial paper and has established guidelines relative to diversification and maturities in an effort to maintain safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates.

Concentrations of credit risk with respect to receivables are limited because the Company's primary customers are various agencies of the United States Government as well as commercial customers engaged in work for the United States Government. As of January 31, 1995, there were no significant concentrations of receivables with these commercial customers.

Reclassifications

Certain amounts from previous years have been reclassified in the consolidated financial statements to conform to the 1995 presentation.

Note B — Acquisitions:

Acquisitions of certain business assets and companies have been accounted for by the purchase method of accounting. The operations of the companies and businesses acquired have been included in the accompanying consolidated financial statements from their respective dates of acquisition. The excess of the purchase price over fair value of the net assets acquired has been included in intangible assets as goodwill. The aggregate effect of the purchased acquisitions was not material, therefore, pro forma financial information is not required.

Note C — Business Segment Information:

The Company's principal business involves the application of scientific expertise, together with computer and systems technology, to solve complex technical problems for government agencies and industrial customers. The skills of the professional staff encompass a variety of scientific and technical disciplines and the management structure is based upon broad technological groupings, not necessarily related to any particular industry, line of business, geographical area, market or class of customer.

For purposes of analyzing and understanding the Company's financial statements, its operations have been classified into two broad segments: Technical Services and Products. The Technical Services segment is further classified between the National Security, Environment, Energy and Other business areas. Other business areas include health, space, transportation and commercial information technology.

Technical services consist of applied and basic research; analysis and development of new and existing policies, concepts, systems and programs; design and development of computer software; systems engineering; systems integration; test and evaluation of new products or systems; technical, operational and management support; environmental engineering; and engineering support to existing facilities, laboratories and systems.

Products include custom designed and standard hardware and software products such as data display devices, "ruggedized" personal computers, sensors and nondestructive imaging instruments. These products typically incorporate Company-developed hardware and software as well as hardware and software manufactured by others.

Segment information from previous years has been reclassified to conform to the 1995 presentation. The reclassifications had no effect on the consolidated financial position or results of operations for the years ended January 31, 1994 and 1993.

Industry segment information is as follows:

	Year ended January 31		
	1995	1994	1993
	<i>(in thousands)</i>		
Contract revenues:			
Technical Services—			
National Security	\$ 891,181	\$ 830,581	\$ 764,280
Environment	264,511	253,937	225,958
Energy	169,732	156,694	157,320
Other	423,362	287,622	239,926
Products	171,206	140,741	116,349
Interest income	1,888	1,307	279
Total revenues	\$1,921,880	\$1,670,882	\$1,504,112
Operating profit:			
Technical Services—			
National Security	\$ 25,356	\$ 27,252	\$ 33,016
Environment	12,962	11,341	9,503
Energy	9,824	7,985	6,675
Other	26,526	11,768	7,789
Products	6,618	13,141	5,684
	81,286	71,487	62,667
Interest income	1,888	1,307	279
Interest expense	(3,468)	(2,966)	(2,841)
Income before income taxes	\$ 79,706	\$ 69,828	\$ 60,105
Identifiable assets:			
Technical Services—			
National Security	\$ 181,444	\$ 160,752	\$ 170,422
Environment	72,867	66,492	58,382
Energy	43,730	37,453	46,631
Other	156,650	83,716	45,346
Products	38,627	40,694	43,967
	493,318	389,107	364,748
Corporate and other assets	259,266	222,468	158,865
Total assets	\$ 752,584	\$ 611,575	\$ 523,613

Because of the nature of the Company's business, sales between segments are not material. Segment operating results reflect general corporate expense allocations because all such expenses are allocated to individual cost objectives by the Company, as required by Government Cost Accounting Standards. Identifiable assets of the respective industry segments consist of receivables, inventories and goodwill. All other assets are either corporate in nature, are not identifiable with particular segments or are not material. Capital expenditures and depreciation and amortization are not identified as to industry segments for similar reasons.

During 1995, 1994 and 1993, approximately 86%, 88% and 88%, respectively, of the Company's contract revenues were attributable to prime contracts with the United States Government or to subcontracts with other contractors engaged in work for the United States Government. Foreign operations and revenues directly attributable to foreign customers are not material.

Note D — Composition of Certain Financial Statement Captions:

	January 31	
	1995	1994
	<i>(in thousands)</i>	
Inventories:		
Contracts-in-process, less progress payments of \$1,971 and \$3,903 at January 31, 1995 and 1994, respectively	\$ 6,794	\$ 7,196
Raw materials	18,562	7,568
	<u>\$ 25,356</u>	<u>\$ 14,764</u>
Property and equipment at cost:		
Computers and other equipment	\$132,629	\$120,617
Office furniture and fixtures	18,136	15,551
Leasehold improvements	12,004	10,951
	<u>162,769</u>	<u>147,119</u>
Less accumulated depreciation and amortization	<u>105,054</u>	<u>96,538</u>
	<u>\$ 57,715</u>	<u>\$ 50,581</u>
Land and buildings at cost:		
Buildings and improvements	\$ 75,884	\$ 57,785
Land	20,919	17,078
Land held for future use	702	790
	<u>97,505</u>	<u>75,653</u>
Less accumulated depreciation and amortization	<u>8,508</u>	<u>6,492</u>
	<u>\$ 88,997</u>	<u>\$ 69,161</u>
Accounts payable and accrued liabilities:		
Accounts payable and other accrued liabilities	\$135,831	\$ 88,552
Collections in excess of revenues on uncompleted contracts	55,598	44,881
	<u>\$191,429</u>	<u>\$133,433</u>
Accrued payroll and employee benefits:		
Salaries, bonuses and amounts withheld from employees' compensation	\$ 70,401	\$ 59,891
Accrued vacation	41,285	36,731
Accrued contributions to employee benefit plans	13,059	9,926
	<u>\$124,745</u>	<u>\$106,548</u>

Note E — Receivables:

Receivables consist of the following:

	January 31	
	1995	1994
	<i>(in thousands)</i>	
Receivables, primarily U.S. Government, less allowance for doubtful accounts of \$1,214 and \$755 at January 31, 1995 and 1994, respectively:		
Billed	\$310,429	\$256,996
Unbilled, less progress payments of \$30,113 and \$16,738 at January 31, 1995 and 1994, respectively	77,749	81,699
Contract retentions	23,570	18,141
Refundable income taxes	10,042	
	<u>\$421,790</u>	<u>\$356,836</u>

Unbilled receivables at January 31, 1995 and 1994 include \$13,776,000 and \$16,228,000 respectively, related to costs incurred on projects for which the Company has been requested by the customer to begin work under a new contract or extend work under a present contract, but for which formal contracts or contract modifications have not been executed. The balance of unbilled receivables consist of costs and fees billable on contract completion or other specified events, the majority of which is expected to be billed and collected within one year. The majority of the retention balance is expected to be collected beyond one year.

Note F — Notes Payable:

The Company has substantially equivalent unsecured revolving credit/term loan agreements with three banks totaling \$67,500,000 which allow borrowings on a revolving basis until July 1, 1996. At that time, the Company has the option to borrow under three-year term notes, payable in twelve quarterly installments. The agreements enable borrowings at various interest rates, at the Company's option, based on prime, money market, London interbank borrowing, certificate of deposit, bankers' acceptance, or other negotiated rates. Annual facility fees are 1/4 of 1% of the total commitment during the initial revolving credit term.

There were no balances outstanding under the credit/term loan agreements at January 31, 1995, 1994 and 1993. As of January 31, 1995, the entire \$67,500,000 was available under the most restrictive debt covenants of the credit/term loan agreements. The maximum amounts outstanding were \$12,800,000, \$19,200,000 and \$31,000,000 in 1995, 1994 and 1993, respectively. The average amount outstanding was \$197,000, \$541,000 and \$6,724,000 during 1995, 1994 and 1993, respectively. The weighted average interest rate in 1995, 1994 and 1993 was 4.9%, 3.5% and 4.5%, respectively, based upon average daily balances.

Note G — Employee Benefit Plans:

Effective February 1, 1994, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 112, "Employers' Accounting for Postemployment Benefits," and Statement of Position ("SOP") 93-6, "Employers' Accounting for Employee Stock Ownership Plans." Adoption of SFAS No. 112, which required the Company to recognize an obligation to provide postemployment benefits in accordance with previously issued standards, had an immaterial effect on net income in 1995. While adoption of SOP 93-6 required certain disclosures in the Notes to Consolidated Financial Statements, it did not have an effect on the Company's financial position or results of operations in 1995.

Effective January 1, 1995, the Company merged two of its former profit sharing retirement plans into one principal Profit Sharing Retirement Plan in which eligible employees participate. Participants' interests vest 25% per year in the third through sixth year of service. Participants also become fully vested upon reaching age 59½, permanent disability or death. Contributions charged to income under the plans were \$27,420,000, \$20,471,000 and \$19,114,000 for 1995, 1994 and 1993, respectively.

The Company has an Employee Stock Ownership Plan (the "Plan") in which eligible employees participate. Cash contributions to the Plan are based upon amounts determined annually by the Board of Directors and are allocated to participants' accounts based on their annual compensation. The Company recognizes compensation expense as the fair value of the Company common stock or cash in the year of contribution. The vesting requirements for the Plan are the same as for the Profit Sharing Retirement Plan. Shares of Company common stock distributed from the Plan bear a limited put option that, if exercised, would require the Company to repurchase the shares at their current fair value. At January 31, 1995, the Plan held 15,974,000 shares of Class A common stock and 37,100 shares of Class B common stock with a combined fair value of \$254,031,000. Contributions charged to income under the Plan were \$10,516,000, \$15,096,000, and \$13,904,000 for 1995, 1994 and 1993, respectively.

The Company has one principal Cash or Deferred Arrangement (CODA) which allows eligible participants to defer a portion of their income through contributions. Such deferrals are fully vested, are not taxable to the participant until distributed from the CODA upon termination, retirement, permanent disability or death and may be matched by the Company. The Company's matching contributions to the CODA of \$10,977,000, \$7,673,000, and \$6,608,000 were charged to income in 1995, 1994 and 1993, respectively. Effective January 1, 1995, the Company's matching contributions to employees hired after such date will be subject to the same vesting requirements as for the Profit Sharing Retirement Plan, while the Company's matching contributions for existing employees remain fully vested.

The Company has a Bonus Compensation Plan which provides for bonuses to reward outstanding employee performance. Bonuses are paid in the form of cash, fully vested shares of Class A common stock or vesting shares of Class A common stock. Awards of vesting shares of Class A common stock made prior to July 10, 1992, vest at the rate of 10%, 20%, 30% and 40% after one, two, three and four years, respectively, from the date of award. Awards of vesting shares of Class A common stock made after July 10, 1992, vest at the rate of 20%, 20%, 20% and 40% after one, two, three and four years, respectively. The amounts charged to income under this plan were \$23,831,000, \$20,111,000, and \$19,234,000 for 1995, 1994 and 1993, respectively.

During 1995, the Company adopted the Stock Compensation Plan and the Management Stock Compensation Plan, together referred to as the "Stock Compensation Plans." The Stock Compensation Plans provide for awards of share units to eligible employees, which share units generally correspond to shares of Class A common stock which are held in trust for the benefit of participants. Participants' interests in these share units vest on a seven year schedule at the rate of one-third at the end of each of the fifth, sixth and seventh years following the date of the award. The amount charged to income under these plans was \$160,000 for 1995.

The Company also has an Employee Stock Purchase Plan which allows eligible employees to purchase shares of the Company's Class A common stock, with the Company contributing 5% of the existing fair market value. There are no charges to income under this plan.

Note H — Income Taxes:

The provision for income taxes includes the following:

	Year ended January 31		
	1995	1994	1993
	<i>(in thousands)</i>		
Payable currently:			
Federal	\$29,138	\$31,482	\$27,247
State and foreign	8,110	7,408	7,224
Deferred:			
Federal	(5,300)	(8,650)	(10,121)
State and foreign	(1,294)	(1,912)	(2,320)
	\$30,654	\$28,328	\$22,030

Deferred income taxes are provided for significant income and expense items recognized in different years for tax and financial reporting purposes. Deferred tax assets (liabilities) are comprised of the following temporary differences:

	January 31	
	1995	1994
	<i>(in thousands)</i>	
Income recognition:		
Contractually billable method	\$16,657	\$10,879
Completed contract method	2,127	6,727
Accrued vacation pay	15,240	14,011
Deferred compensation	6,628	5,374
Vesting stock bonuses	4,591	3,720
Other	3,677	2,384
Total deferred tax assets	48,920	43,095
Employee benefit plan contributions	(9,356)	(10,270)
Depreciation and amortization	(4,026)	(5,054)
Cash to accrual basis conversion for certain subsidiaries	(2,221)	
Contributions to voluntary employee beneficiary association		(1,562)
Other	(1,875)	(520)
Total deferred tax liabilities	(17,478)	(17,406)
Net deferred tax asset	\$31,442	\$25,689

A reconciliation of the provision for income taxes to the amount computed by applying the statutory federal income tax rate (35% for 1995 and 1994, and 34% for 1993) to income before income taxes follows:

	Year ended January 31		
	1995	1994	1993
	<i>(in thousands)</i>		
Amount computed at statutory rate	\$27,897	\$24,440	\$20,436
State income taxes, net of federal tax benefit	4,303	3,573	3,236
Revision of prior years' tax estimates	(4,134)	(251)	(1,887)
Nondeductible meals and entertainment	2,150	772	705
Other	438	(206)	(460)
	\$30,654	\$28,328	\$22,030

Other assets include deferred income taxes of \$10,906,000 and \$3,606,000 at January 31, 1995 and 1994, respectively. Income taxes paid in 1995, 1994 and 1993 amounted to \$35,600,000, \$38,392,000, and \$25,480,000, respectively. The effective rates for 1995, 1994 and 1993 have been reduced as a result of ongoing resolutions of certain issues relating to prior year federal and state income tax returns as well as a favorable settlement of 1986 and 1987 tax years.

Note I — Long-Term Liabilities:

Long-term liabilities consist of the following:

	January 31	
	1995	1994
	<i>(in thousands)</i>	
Mortgage payable collateralized by real property	\$12,551	\$12,654
Deferred compensation	14,042	11,609
Other	3,844	1,940
	30,437	26,203
Less current portion	1,482	1,143
	<u>\$28,955</u>	<u>\$25,060</u>

In connection with the purchase of land and a building in 1991, the Company assumed a mortgage note of \$12,800,000. Terms of the note include an 8.88% interest rate and monthly payments of principal and interest of \$102,000 until July 1, 1997 when the remaining principal balance becomes due.

The Company maintains a Keystaff Deferral Plan for the benefit of key executives and directors, pursuant to which eligible participants may elect to defer a portion of their compensation. The Company makes no contributions to the accounts of participants under this plan but does credit participant accounts for deferred compensation amounts and for interest earned on such deferred compensation. Interest is accrued based on the Moody's Seasoned Corporate Bond Rate (7.26% in 1995). Deferred balances will generally be paid upon the later of ten years of plan participation or retirement, unless participants elect an early pay-out.

The carrying amount of the Company's long-term liabilities approximates fair value. The fair value of the Company's long-term liabilities is estimated based on the current rates offered to the Company for similar debt of the same remaining maturities.

Maturities of long-term liabilities are as follows:

Year ending January 31	<i>(in thousands)</i>
1996	\$ 1,482
1997	631
1998	14,490
1999	654
2000	316
2001 and after	12,864
	<u>\$30,437</u>

Note J — Common Stock and Options:

The Company has options outstanding under two stock option plans, the 1992 Stock Option Plan (the 1992 Plan), which was adopted effective July 10, 1992, and the 1982 Stock Option Plan (the 1982 Plan). Under the 1992 and 1982 Plans, options are granted at prices not less than the fair market value at the date of grant and for terms not greater than ten years. Options granted prior to July 10, 1992 generally become exercisable 10%, 20%, 30% and 40% after one, two, three and four years, respectively, from the date of grant. Options granted after July 10, 1992 generally become exercisable 20%, 20%, 20% and 40% after one, two, three and four years, respectively, from the date of grant. No options have been granted under the 1982 Plan after July 10, 1992, the date the 1982 Plan terminated. The Company makes no charge to income in connection with these Plans.

As of January 31, 1995, 17,633,000 shares of Class A common stock were reserved for issuance upon exercise of options which are outstanding or which may be granted. As of January 31, 1995, options for 4,014,000 shares of Class A common stock were exercisable and 5,980,000 shares of Class A common stock were available for future grants.

A summary of changes in outstanding options under the Plans during the three years ended January 31, 1995, is as follows:

	Option prices per share	Shares of Class A common stock underlying options (in thousands)
January 31, 1992	\$ 6.82 to \$10.83	9,990
Options granted	11.15 to 11.83	2,864
Options canceled	6.82 to 11.83	(556)
Options exercised	6.82 to 10.83	(1,759)
January 31, 1993	7.04 to 11.83	10,539
Options granted	12.01 to 13.12	2,580
Options canceled	7.04 to 13.12	(442)
Options exercised	7.04 to 11.83	(1,988)
January 31, 1994	8.19 to 13.12	10,689
Options granted	14.19 to 15.07	3,201
Options canceled	8.19 to 15.07	(646)
Options exercised	8.19 to 13.12	(1,581)
January 31, 1995	\$ 9.32 to \$15.07	<u>11,653</u>

The Company has agreed to make available for issuance, purchase or options approximately 1,114,000 shares of Class A common stock to employees, prospective employees and consultants, generally contingent upon commencement of employment or the occurrence of certain events. The selling price of shares and the exercise price of options are to be the fair market value at the date such shares are made available or options are granted.

Note K — Commitments and Contingencies:

The Company occupies most of its facilities under operating leases. Most of the leases require the Company to pay maintenance and operating expenses such as taxes, insurance and utilities and also contain renewal options extending the leases from one to twenty years. Certain of the leases contain purchase options and provisions for periodic rate escalations to reflect cost-of-living increases. Certain equipment, primarily computer-related, is leased under short-term or cancelable leases. Rental expenses for facilities and equipment totaled \$58,538,000, \$57,213,000 and \$54,050,000 in 1995, 1994 and 1993, respectively.

Minimum rental commitments, primarily for facilities, under all noncancelable operating leases in effect at January 31, 1995, are payable as follows:

Year ending January 31	(in thousands)
1996	\$ 41,826
1997	25,003
1998	17,348
1999	13,506
2000	8,684
2001 and after	11,393
	<u>\$117,760</u>

The Company leases a general purpose office building and has guaranteed a \$12,250,000 loan on behalf of the building owner. Certain financial ratios and balances required by the guarantee have been maintained.

Other commitments at January 31, 1995 include outstanding letters of credit aggregating \$11,676,000, principally related to guarantees on contracts with commercial and foreign customers, and outstanding surety bonds aggregating \$86,324,000, principally related to performance and payment type bonds.

On February 15, 1994, the Company was served with search warrants and a subpoena for documents and records associated with the performance by the SAIT operating unit of the Company under three contracts with the DOD. The search warrants and subpoena state that the U.S. Government is seeking evidence regarding the making of false statements and false claims to the DOD, as well as conspiracy to commit such offenses. The search warrant and subpoena appear to be based upon allegations contained in a civil complaint that had been filed under seal on March 13, 1993 by an employee of the Company's SAIT operating unit. The complaint was filed in the U.S. District Court for the Southern District of California and sought damages on behalf of the U.S. Government under the Federal False Claims Act. On August 1, 1994, the Department of Justice on behalf of the U.S. Government announced its intention to intervene in the case. Based on the Company's motion, on November 8, 1994, the District Court dismissed the employee who had originally filed the complaint from the lawsuit, leaving only the U.S. Government and the Company as parties. The employee has appealed the District Court's order to the U.S. Court of Appeals for the Ninth Circuit. The Company has engaged in a series of presentations and submissions with the Department of Justice in which the Company responded to issues raised by the Department of Justice. At this stage of the proceedings, the Company is unable to assess the impact, if any, of this investigation and lawsuit on its consolidated financial position, results of operations or ability to conduct business.

The Company is involved in various other investigations, claims and lawsuits arising in the normal conduct of its business, none of which, in the opinion of the Company's management, will have a material adverse effect on its consolidated financial position, results of operations or its ability to conduct business.

Note L — Supplementary Income Statement Information:

Charges to costs and expenses for depreciation and amortization of buildings, property and equipment were \$21,481,000, \$20,120,000 and \$19,956,000 for 1995, 1994 and 1993, respectively.

The Company expensed \$8,490,000, \$5,689,000 and \$8,238,000 of independent research and development costs during 1995, 1994 and 1993, respectively.

Total interest paid in 1995, 1994 and 1993 amounted to \$1,514,000, \$1,449,000 and \$1,743,000 respectively.

REPORT OF INDEPENDENT ACCOUNTANTS*Price Waterhouse LLP*

To the Board of Directors and Stockholders of
Science Applications International Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income and of stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Science Applications International Corporation and its subsidiaries at January 31, 1995 and 1994, and the results of their operations and their cash flows for each of the three years in the period ended January 31, 1995, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Price Waterhouse LLP

San Diego, California
March 31, 1995

SELECTED FINANCIAL DATA — FIVE YEARS

	Year ended January 31				
	1995	1994	1993	1992	1991
	<i>(Amounts in thousands, except earnings per share)</i>				
Revenues	\$1,921,880	\$1,670,882	\$1,504,112	\$1,285,294	\$1,162,934
Cost of revenues	1,692,623	1,477,701	1,327,992	1,124,756	1,016,250
Selling, general and administrative expenses	146,083	120,387	113,174	101,935	90,722
Interest expense	3,468	2,966	2,841	2,964	1,999
Provision for income taxes	30,654	28,328	22,030	22,023	20,662
Net income	49,052	41,500	38,075	33,616	33,301
Earnings per share (1)	\$ 1.01	\$.89	\$.83	\$.75	\$.73
Average number of shares outstanding, including common stock equivalents	49,264	47,429	46,179	44,825	45,921

	January 31				
	1995	1994	1993	1992	1991
	<i>(Amounts in thousands)</i>				
Total assets	\$ 752,584	\$ 611,575	\$ 523,613	\$ 437,975	\$ 372,788
Working capital	173,467	206,580	174,797	131,177	115,122
Long-term liabilities	28,955	25,060	25,851	27,036	26,079
Stockholders' equity	387,564	335,502	280,047	234,874	205,751

- (1) Fully diluted earnings per share are substantially the same as primary earnings per share for the years presented. The Company has never declared or paid cash dividends on its capital stock and no cash dividends are presently contemplated.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Results of Operations

Revenues increased 15%, 11% and 17% in 1995, 1994 and 1993, respectively, over the prior year. Revenues in 1995 from the Company's principal customer, the U.S. Government, continued to shift toward lower cost service type contracts as also occurred in 1994 from 1993. This trend reflects the increasingly competitive business environment in the Company's traditional business areas, as well as the Company's increased success in the engineering and field services market, which typically involve lower cost contracts.

The sale of Technical Services and Products to the U.S. Government as a prime contractor or subcontractor accounted for 86% of revenues in 1995, and 88% in 1994 and 1993. This decrease is attributable to growth in non-U.S. Government revenues as a result of the Company's efforts to increase revenues from state and local governments and commercial clients in certain focused business areas. The revenue mix between the Technical Services segment and the Products segment shifted slightly to 91% and 9%, respectively, of consolidated revenues in 1995 from 92% and 8%, respectively, of consolidated revenues in 1994 and 1993.

Within the Technical Services segment, revenues are further classified between "National Security," "Environment," "Energy" and "Other Technical Services." Other Technical Services includes the health, space, transportation and commercial information technology business areas. Revenues in each of the business area classifications within the Technical Services segment increased in 1995 over 1994.

National Security revenues decreased to 46% of total revenues in 1995 from 50% in 1994 and 51% in 1993. Although National Security revenues declined as a percentage of total revenues, these revenues increased 7% in 1995, 9% in 1994 and 13% in 1993 over the prior year, in spite of declines in the overall defense market during these periods. The U.S. Government maintained funding in areas in which the Company has strong capabilities, such as research and development, training, simulation and test and evaluation. Revenues in the Environment business area decreased slightly as a percentage of total revenues to 14% in 1995 from 15% in 1994 and 1993. Energy revenues remained constant at 9% of total revenues for 1995 and 1994, down slightly from 10% in 1993. Other Technical Services revenues have increased to 22% of total revenues in 1995 from 17% in 1994 and 16% in 1993. The continued growth in Other Technical Services reflects the Company's expansion into the health, transportation and commercial information technology markets and mirrors the country's shift of priorities and resources from defense programs to civilian programs in areas such as health care and transportation. The Company expects this trend to continue. In order for the Company to maintain or exceed historical revenue growth rates, it will need to continue to increase its market share in the National Security business area or its revenues from the environment, energy, health, space, transportation and commercial information technology business areas.

Product revenues increased 22%, 21% and 28% in 1995, 1994 and 1993, respectively, over the prior year. The increases in Product revenues have primarily occurred on existing mature product lines.

Revenues are generated from the efforts of the Company's technical staff as well as the pass through of costs for materials and subcontract efforts, which primarily occur on large, multi-year contracts. At the end of 1995, the Company had 16,700 full-time employees compared to 15,400 and 14,200 at the end of 1994 and 1993, respectively. Material and subcontract ("M&S") revenues were \$560 million in 1995, \$458 million in 1994 and \$402 million in 1993. As a percentage of total revenues, M&S revenues were 29% in 1995 and 27% in 1994 and 1993 and have increased due to the growth in the pass through of M&S costs on certain large, multi-year systems integration contracts and the growth of Product revenues. Product revenues generally have a very high percentage of M&S cost content.

The Company's business is directly related to the receipt of contract awards and contract performance. There were 333 contracts with annual revenues greater than \$1 million in 1995, compared with 294 such contracts in 1994. These larger contracts represented 77% of the Company's revenues in each of these years. Of these contracts, 20 contracts had individual revenues greater than \$10 million in 1995 and 1994. The remainder of the Company's revenues are derived from a large number of contracts with individual revenues less than \$1 million. Although the Company has committed substantial resources and personnel required to pursue larger contracts, the Company believes it maintains a suitable environment for the performance of smaller, highly technical, research and development contracts. These smaller programs often provide the foundation for the Company's success on larger procurements.

The following table summarizes revenues by contract type for the last three years:

	Year ended January 31		
	1995	1994	1993
Contract type:			
Cost-reimbursement	59%	60%	59%
Time-and-materials and fixed-price level-of-effort	22%	21%	20%
Firm fixed-price	19%	19%	21%
Total	100%	100%	100%

Cost-reimbursement contracts provide for the reimbursement of direct costs and allowable indirect costs, plus a fee or profit component. Time-and-materials ("T&M") contracts typically provide for the payment of negotiated fixed hourly rates for labor hours incurred plus reimbursement of other allowable direct costs at actual cost plus allocable indirect costs. Fixed-price level-of-effort ("FP-LOE") contracts are similar to T&M contracts since ultimately revenues are based upon the labor hours provided to the customer. Firm fixed-price contracts require the Company to provide stipulated products, systems or services for a fixed price. The Company assumes greater performance risk on firm fixed-price contracts and the failure to accurately estimate ultimate costs or to control costs during performance of the work may result in reduced profits or losses.

The cost of revenues as a percentage of revenues (excluding interest income) was 88.2% in 1995, 88.5% in 1994 and 88.3% in 1993. This relatively constant cost of revenues percentage represents a number of offsetting effects. Trends which increased the cost of revenues percentage are faster revenue growth

in M&S revenues, which have nearly all their associated costs in the cost of revenues category; faster revenue growth in lower cost service type contracts, which typically have more of their associated costs in cost of revenues and less costs in selling, general and administrative ("SG&A") expenses; and overruns during the performance of certain firm fixed-price contracts in 1995, 1994 and 1993, which resulted in losses or lower profits for such contracts. The primary trend which decreased the cost of revenues percentage is the growth in commercial revenues, which have more of their associated costs in SG&A as opposed to cost of revenues.

SG&A expenses as a percentage of revenues (excluding interest income) were 7.6%, 7.2% and 7.5% in 1995, 1994 and 1993, respectively. SG&A is comprised of general and administrative ("G&A"), bid and proposal ("B&P") and independent research and development ("IR&D") expenses. B&P costs have remained constant in relation to revenues over the past three years. The level of B&P activity and costs has historically fluctuated depending on the availability of bidding opportunities and resources. During 1995, IR&D costs increased as a percentage of revenues due to a focused effort by the Company to build core capabilities in areas which it believes are key to its future growth: distributed interactive simulation, imagery, medical, environmental and software development. G&A expenses increased 21% over 1994 and increased as a percentage of total revenues to 5.2% in 1995 from 5.0% in 1994. This relative increase was driven by the growth in revenues from commercial contracts, which have more of their associated costs in G&A, and an increase in goodwill amortization costs due to an increase in the number of business acquisitions in 1995 and 1994. The Company continues to closely monitor G&A expenses as part of an on-going program to control indirect costs.

Operating profit margins by segment are strongly correlated to the Company's financial performance on the contracts within each segment. The operating profit margin in the Technical Services segment increased to 4.3% in 1995 from 3.8% in 1994 and 4.1% in 1993. The National Security operating profit margin was 2.8% in 1995; compared to 3.3% in 1994 and 4.3% in 1993. The lower operating profit margins in 1995 and 1994 as compared to 1993 were a result of overruns on certain firm fixed-price contracts in the National Security area. Environment operating profit margins were 4.9%, 4.5% and 4.2%, respectively, for 1995, 1994 and 1993. Energy operating profit margins increased to 5.8% in 1995 from 5.1% in 1994 and 4.2% in 1993, primarily due to higher profit margins on contracts with commercial utilities. The operating profit margin in Other Technical Services increased to 6.3% in 1995 from 4.1% in 1994 and 3.2% in 1993. The increase in operating profit margins in Other Technical Services in 1995 and 1994 over 1993 was a result of an improvement in the performance of certain firm fixed-price contracts. The operating profit margin in the Products segment decreased to 3.9% in 1995 from 9.3% in 1994 and 4.9% in 1993. The 1995 decrease is attributable to overruns on certain firm fixed-price contracts, while the 1994 increase in profit margin was attributable to higher margins on existing product lines. In general, overall operating profit margins for the Company in 1995, 1994 and 1993 are lower than historical margins due to increased competition and overruns on certain firm fixed-price contracts.

Interest expense in 1995, 1994 and 1993 primarily relates to interest on a building mortgage, deferred compensation and borrowings outstanding under the Company's credit/term loan agreements. Although interest expense on borrowings under the Company's credit/term loan agreements decreased in 1995 from 1994 and 1993, overall interest expense increased primarily due to interest accrued on the deferred compensation plans.

The provision for income taxes as a percentage of income before income taxes was 38.5% in 1995, 40.6% in 1994 and 36.7% in 1993. The decrease in the effective rate for 1995 from 1994 was primarily related to a final settlement of certain issues related to the Company's 1986 and 1987 federal and state income tax returns. The increase in the effective rate for 1994 was primarily attributable to the increase in the federal statutory rate as a result of the Omnibus Budget Reconciliation Act of 1993, as well as a lower level of downward revisions of prior year tax estimates as a result of ongoing resolutions of certain issues relating to prior year federal and state income tax returns.

As described in the Notes to Consolidated Financial Statements, effective February 1, 1994, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 112, "Employers' Accounting for Postemployment Benefits," SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," SFAS No. 119, "Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments," and Statement of Position ("SOP") 93-6, "Employers' Accounting for Employee Stock Ownership Plans." Adoption of SFAS No. 112, which required the Company to recognize an obligation to provide postemployment benefits in accordance with previously issued standards, did not have a material effect on the Company's financial position or results of operations in 1995. Adoption of SFAS No. 115, SFAS No. 119 and SOP 93-6, which required certain disclosures in the Notes to Consolidated Financial Statements, did not have an effect on the Company's financial position or results of operations in 1995.

On February 15, 1994, the Company was served with search warrants and a subpoena for documents and records associated with the performance by the SAIT operating unit of the Company under three contracts with the Department of Defense (DOD). The search warrants and subpoena state that the U.S. Government is seeking evidence regarding the making of false statements and false claims to the DOD, as well as conspiracy to commit such offenses. The search warrants and subpoena appear to be based upon allegations contained in a civil complaint that had been filed under seal on March 13, 1993 by an employee of the Company's SAIT operating unit. The complaint was filed in the U.S. District Court for the Southern District of California and sought damages on behalf of the U.S. Government under the Federal False Claims Act. On August 1, 1994, the Department of Justice on behalf of the U.S. Government announced its intention to intervene in the case. Based on the Company's motion, on November 8, 1994, the District Court dismissed the employee who had originally filed the complaint from the lawsuit, leaving only the U.S. Government and the Company as parties. The employee has appealed the District Court's order to the U.S. Court of Appeals for the Ninth Circuit. The Company has engaged in a series of presentations and submissions with the Department of Justice in which the Company responded to issues raised by the Department of Justice. At this stage of the proceedings, the Company is unable to assess the impact, if any, of this investigation and lawsuit on its consolidated financial position, results of operations or its ability to conduct business.

The Company is involved in various other investigations, claims and lawsuits arising in the normal conduct of its business, none of which, in the opinion of the Company's management, will have a material adverse effect on its consolidated financial position, results of operations or its ability to conduct business.

Liquidity and Capital Resources

The Company's primary sources of liquidity continue to be funds provided by operations and revolving credit/term loan agreements. At January 31, 1995 and 1994, there were no borrowings outstanding under such agreements and cash and cash equivalents and long-term investments totaled \$48 million and

\$60 million, respectively. Cash flows generated from operating activities increased to \$117 million in 1995 from \$86 million and \$76 million in 1994 and 1993, respectively. The Company continues to actively monitor receivables with emphasis placed on collection activities and the negotiation of more favorable payment terms. As a result, average receivable days outstanding decreased to 63 in 1995 from 64 in 1994.

Cash flows spent on investing activities increased to \$120 million in 1995 compared to \$47 million and \$37 million in 1994 and 1993, respectively. Expenditures for the acquisition of businesses were \$71 million in 1995 compared to \$14 million in 1994 and \$18 million in 1993. Acquisitions of businesses in 1995 were primarily made to complement the Company's capabilities in the areas of transportation, environment, health and energy. Additional acquisitions were also made in the National Security business area to improve the Company's capabilities in areas in which the Company expects continued DOD funding. The Company expects to continue to acquire businesses for these and other purposes in the future. Capital expenditures, excluding land and buildings, were \$20 million in 1995 and \$18 million in 1994 and 1993 and are expected to be approximately \$28 million for 1996. Expenditures for land and buildings were \$15 million, \$9 million and \$2 million in 1995, 1994 and 1993, respectively, and are expected to be approximately \$7 million for 1996.

The Company used \$22 million for financing activities in 1995 compared to \$1 million and \$24 million in 1994 and 1993, respectively. In 1995, funds were utilized primarily for common stock repurchases and retirement of outstanding debt associated with businesses acquired in 1995. The 1995 increase in utilization of funds from 1994 was primarily due to a reduction in sales of the Company's common stock. The 1994 decrease in utilization of funds from 1993 was primarily due to increased sales of the Company's common stock and decreased borrowing activity.

Subsequent to January 31, 1995, the Company increased its borrowing capacity by replacing its credit/term loan agreements with new unsecured credit agreements with three banks totaling \$105 million, which allow borrowings on a revolving basis until March 31, 2000. The Company's cash flows from operations plus borrowing capacity are expected to provide sufficient funds for the Company's operations, business acquisitions, common stock repurchases, capital expenditures and future long-term debt requirements.

Effects of Inflation

The majority of the Company's contracts are cost-reimbursement type contracts or are completed within one year. As a result, the Company has been able to anticipate increases in costs when pricing its contracts. Bids for longer term fixed-price and T&M type contracts typically include labor and other cost escalations in amounts expected to be sufficient to cover cost increases over the period of performance. Consequently, because costs and revenues include an inflationary increase commensurate with the general economy, net income, as a percentage of revenues, has not been significantly impacted by inflation.

Other Stockholder Information

Stock Information

The following table sets forth information concerning the stock price for Class A Common Stock, and the applicable price for the Class B Common Stock for the periods beginning on the dates indicated:

Date	Price per share of Class A Common Stock	Price per share of Class B Common Stock
April 9, 1993	\$12.63	\$63.15
July 9, 1993	\$12.85	\$64.25
October 8, 1993	\$13.12	\$65.60
January 14, 1994	\$14.19	\$70.95
April 9, 1994	\$14.46	\$72.30
July 9, 1994	\$14.48	\$72.40
October 15, 1994	\$15.07	\$75.35
January 14, 1995	\$15.72	\$78.60
April 14, 1995	\$16.41	\$82.05

There is no general public market for the Company's common stock. A limited secondary market for the Company's common stock has been implemented through a wholly-owned subsidiary registered as a broker-dealer. The Company's Board of Directors determines the stock price with the assistance of an independent appraiser and the use of a formula, which includes a market factor that reflects relevant outside securities market conditions. Existing stockholders may sell stock at the then current stock price to employees, consultants or directors who have been approved by the Board of Directors of the Company to purchase an equity interest in the Company. The trustees of the Company's Employee Stock Ownership Plan, Profit Sharing Retirement Plan, Cash or Deferred Arrangement, and Employee Stock Purchase Plan may also purchase shares for their respective trusts in the limited market. At January 31, 1995, there were approximately 10,700 stockholders of record.

Annual Meeting

The annual meeting of the stockholders of Science Applications International Corporation will be held on July 14, 1995 in the Grand Ballroom of the Ritz-Carlton Hotel, 1700 Tysons Blvd., McLean, Virginia. Notice of the meeting and proxy statement will be mailed to stockholders in advance of the meeting.

The Company's Report on Form 10-K for the year ended January 31, 1995, as filed with the Securities and Exchange Commission, contains additional information about the Company and is available free of charge to the Company's stockholders. Please direct requests to the attention of the Corporate Secretary, Science Applications International Corporation, 10260 Campus Point Drive, San Diego, California 92121. Telephone (619) 535-7323.

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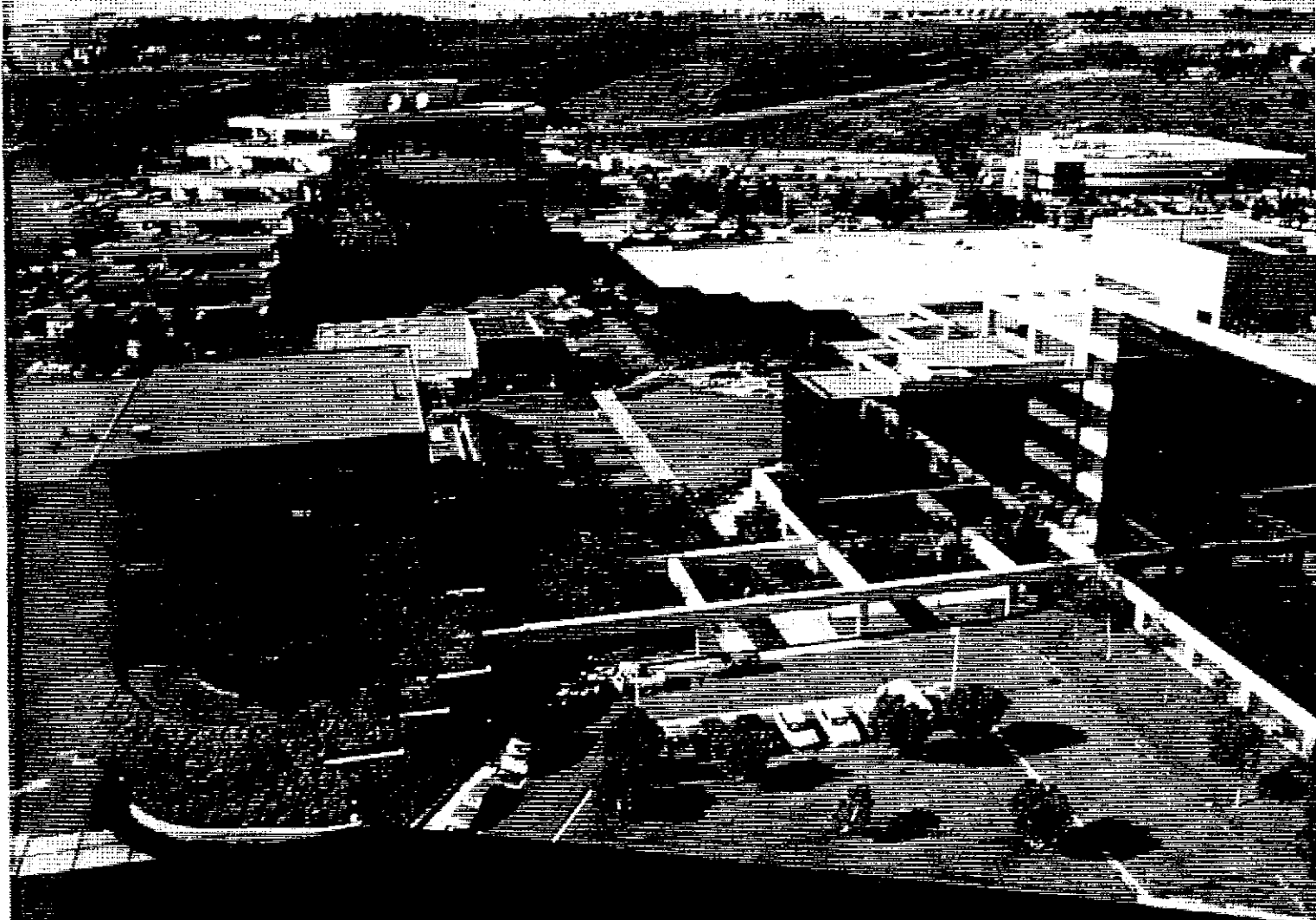
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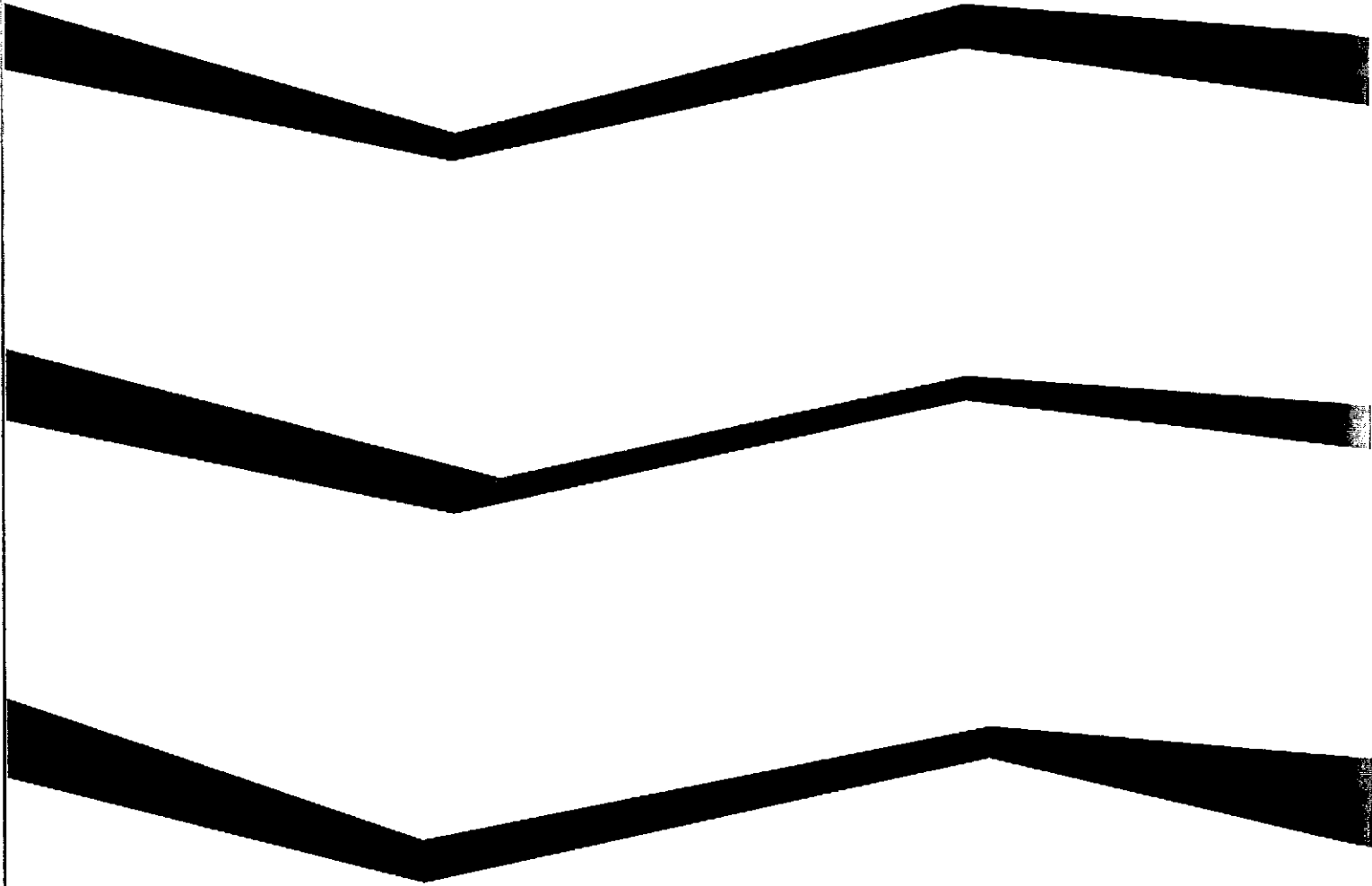
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10 YEARS OF SERVICE



SAIC Science Applications
International Corporation
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付属書 4 . Ux社とUxC社に関する資料



The Uranium Exchange Company

1996 Product List

The Ux Weekly

For 10 years **The Uranium Exchange Company (Ux)** has been publishing one of the industry's best known newsletters, *The Ux Weekly*. This widely read newsletter is published every Monday, 51 weeks a year. It contains thought-provoking commentary, in-depth analytical discussions and reports of current news events, and tracks market activity and market price indicators. *The Ux Weekly* is available by fax and/or mail and soon via the Internet.

Ux Market Reports

As part of Ux's consulting services, Market Outlook reports are prepared covering the entire front end of the nuclear fuel supply. These reports and Ux's **Price Indicator System** are discussed below:

Uranium

The quarterly *Uranium Market Outlook* report reviews recent activities in the spot and long-term uranium markets, analyzes the outlook for the upcoming quarter, and discusses potential price movements in the near- and long-term markets. This report also includes three sets of market price indicators that are designed to signal future price changes and monthly updates that analyze market developments.

Enrichment

The quarterly *Enrichment Market Outlook* reviews recent activities in the spot and long-term enrichment market developments, analyzes the uncovered SWU positions and contracting activities of western utilities and discusses potential future price developments. This report includes two sets of market price indicators that are designed to alert market players of changing conditions that could affect the spot and long-term enrichment markets and a monthly update that reviews market developments.

Conversion

The annual *Conversion Market Outlook* report reviews conversion supply and demand fundamentals, discusses recent and possible future developments affecting the market and analyzes potential future price developments. This report also includes a set of indicators, updated monthly, designed to measure the price outlook over the following year.

Fabrication

The annual *Fabrication Market Outlook* report reviews the status of utility fabrication contracts by reactor, discusses present market conditions and analyzes potential future price developments.

Ux Special Reports

Ux also offers a number of special products that include special one-time, in-depth studies on a particular issue (**The Evolving EUP Market and Nuclear Power Development in Asia**), monthly reports on subjects in which there is particular interest and projects that involve models and databases that are maintained on a joint venture basis (**U-PRICE and Nuclear Supply Analysis Reports**).



The Ux Consulting Company, LLC

Company Background

As an affiliate of The Uranium Exchange Company (Ux), The Ux Consulting Company (UxC) was founded in March, 1994, in order to extend and provide greater focus to Ux's consulting capabilities. In this capacity, UxC was set up to help companies address new market challenges, as well as to contribute to Ux's standard consulting reports. Over the past year and a half, UxC has produced strategic studies for firms active in the uranium and enrichment markets, and has also prepared a number of smaller commissioned studies dealing with a variety of subjects.

Examples of projects that UxC has delivered over the past year and a half:

- A comprehensive analysis of the uranium market over the next twenty years.
- A detailed study of market opportunities in the enrichment industry.
- An ongoing examination of HEU developments and their potential market impact.
- An analysis of the effect of changing trade restrictions on nuclear fuel markets.
- A monthly monitoring report on enrichment market activity.
- A database/model on uranium inventories, including HEU and tails material.
- A comprehensive study on the evolving EUP market and its implications.

Since its inception, UxC has been involved in a venture with Science Applications International Corporation (SAIC) to jointly market and support the U-PRICE model developed by SAIC. U-PRICE is a dynamic computer forecasting model of the uranium market, and is programmed on Microsoft Excel® for Windows for ease of use. The U-PRICE model provides projections of uranium prices, production, and inventories based on assumptions input by the user. Because it incorporates such market factors as trade restrictions on CIS uranium, availability of uranium from HEU supplies, exchange rates, and inventory use, U-PRICE has the ability to simulate a wide variety of market scenarios. Over the past year and a half, U-PRICE has been used by a number of organizations, including the U.S. Department of Energy, to examine various market issues.

Recently, UxC has entered a teaming relationship with International Nuclear, Inc. (iNi) to produce a series of reports on all facets of nuclear fuel supply. These reports, part of the Nuclear Supply Analysis (NSA) system, include detailed data and information on individual producers as part of the NSA Encyclopedia, and summary data on all producers as part of the NSA Overview. Both the NSA Encyclopedia and Overview are supplemented by NSA Topical Reports, which are published throughout the year to update key production developments.

Through the teaming arrangements with SAIC and iNi, as well as its affiliation with Ux, UxC is poised to provide the most complete consulting and information services in the industry, backed up by industry experience, strong analytical skills, and comprehensive data.

Here's Looking At U (and SWU)

Dave Clark

President

The Uranium Exchange Company

and

Jeff Combs

President

The Ux Consulting Company, LLC

Presented at

Nuclear Energy Institute (NEI)

96 FUEL CYCLE

New Orleans

March 24 - 27, 1996

Here's Looking At U (and SWU)

*Dave Clark, President
The Uranium Exchange Company
and
Jeff Combs, President
The Ux Consulting Company, LLC*

*Unless we change our direction, we are
most likely to end up where we are headed*

— Chinese Proverb

Introduction

With uranium prices now having risen by more than 70% over the past year and a half, most buyers are asking themselves how high will the market go and will these higher prices be sustainable. Part of the answer may come from looking at why the market is moving higher now to begin with. At the same time the uranium market is commanding most, if not all, of the attention, utilities continue asking what the future for enrichment will be as well now that the SWU market appears to be a lot more stable.

Looking into the future, though, the current volatility in the uranium market may give way to a period of long-term stability while the current apparent stability in the enrichment market may end with a turn toward a far more competitive environment for the primary sellers.

The Uranium Market

The journey of the uranium market since 1980 has seemed to be an unending maze of major market events. The large wave of reactor cancellations in the early 1980s was followed by Chernobyl, a 50% contraction in western production, the discovery of Canada's Cigar Lake, the miners' lawsuit against DOE and a trip to the Supreme Court, the beginning of Chinese sales to the west, the wave of material from the USSR, the breakup of the USSR, the antidumping suit, Euratom's CIS restrictions, the onset of the age of swords to plowshares and the ups and downs of HEU.

Through all this time, the market was driven more by inventory liquidations that resulted from the vast supply/demand imbalance than by the cost of new production. As each event unfolded, the drive to reduce or liquidate excess inventories increased with a resulting new downward pressure on spot prices.

During this dizzying course of events, the spot U_3O_8 price fell 85% from January 1980, when it was \$40/lb U_3O_8 , until the ultimate bottom of less than \$7/lb was reached nearly 12 years later. Of course there were some mini price booms along the way, notably those in 1982-83, 1985 and 1990. After 1990, though, price movements became more complicated by the development of a two-tiered market that was brought about by the imposition of U.S. and Euratom restrictions on CIS material.

Looking back at the market over the past 16 years and trying to put all of the events and price movements into perspective yields what may be characterized as three megatrends in the market's development. Each of these trends not only impacted the market as it was occurring, their impact continues today and will have a bearing on the market here forward.

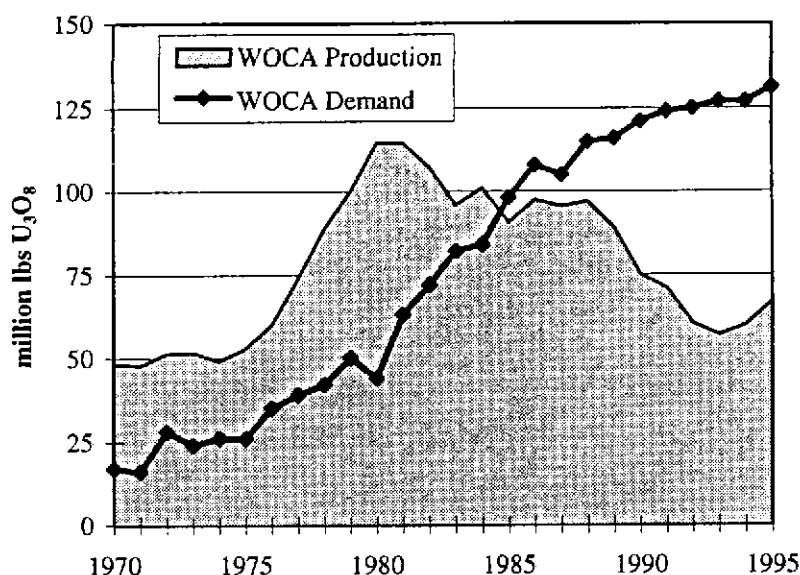
The first megatrend was the western industry consolidation that was needed to bring supply, demand and inventories into balance. As this was about to be completed in the late 1980s, the breakdown of the wall between the east and west created a situation where the market had to absorb excess supplies brought about by the integration of eastern supplies into the western market. And if the two waves of consolidation/integration were not enough, the market then faced the challenge presented by the integration of commercial and military markets on a world basis.

Western Consolidation

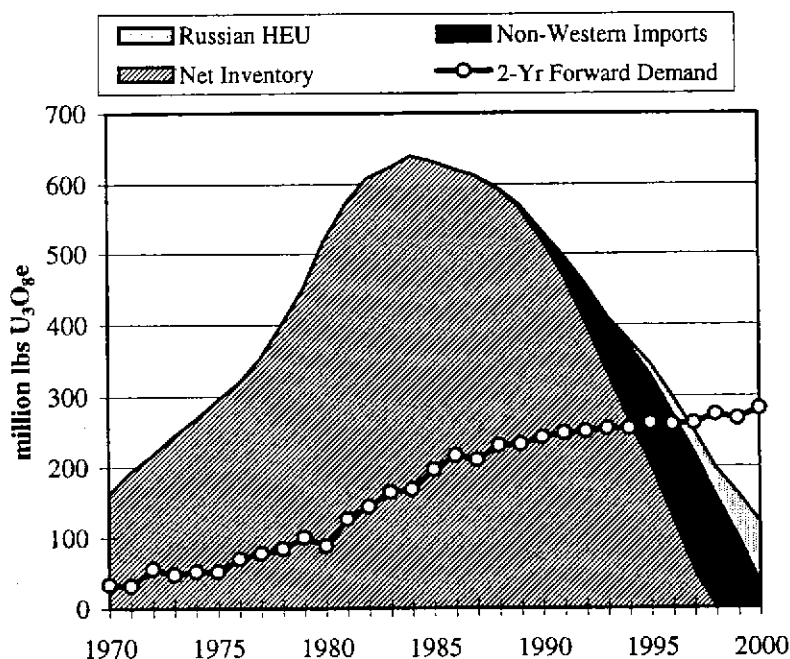
1980-1994

By 1980, a wave of reactor cancellations had begun in response to the worldwide move toward energy conservation brought about by the second oil crisis. At the same time, the Three Mile Island accident took its toll on the industry as well. What made the early 1980s particularly hard on uranium producers was the complete imbalance between supply and demand (Figure 1) that dominated the commercial market which had begun only ten years before.

Figure 1. Western Production vs. Reactor Requirements, 1970 to 1995



By 1985 demand finally caught up with production. However, the large buildup in commercial inventories that had been generated from the 1970s oversupply and which peaked at nearly 600-million lbs U_3O_8 or six years of annual demand at that time (Figure 2), dominated the industry through the rest of 1980s and into the early 1990s.

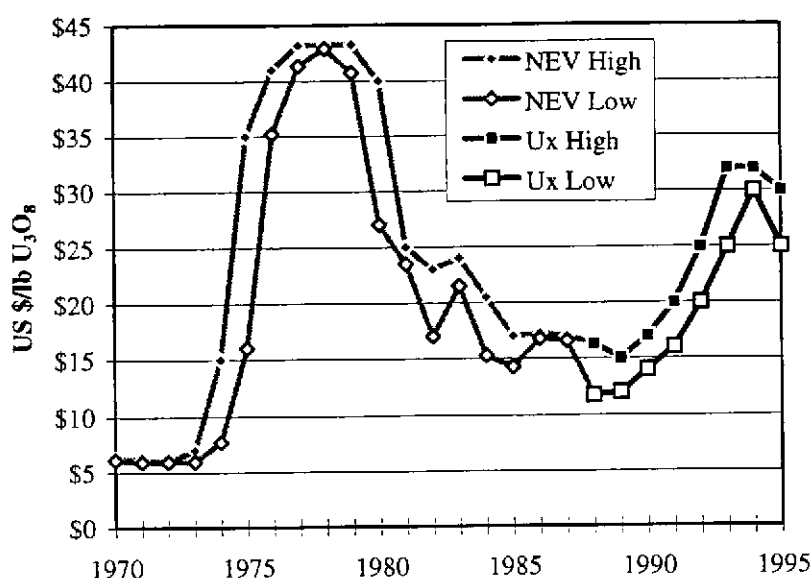
Figure 2. Western Inventory Balance vs. Desired Inventory Level at \$10/lb U_3O_8 

The strong drive to consume or sell excess inventories made the cost of production a marginal factor in price development during this period. This first reached an extreme in 1982-83 when utilities looking to liquidate excess

stocks became the largest spot selling group while producers became the largest buyers as they elected to shut down production and cover their commitments by making market purchases at prices below production costs.

As demand rose and production fell, inventories began dropping rapidly and a perception persisted that the market turnaround was only two years away. Given the rapid pace of inventory use, as depicted in Figure 2, the 1989 Ux price forecast, as shown in Figure 3, represents what was then considered within the norm.

Figure 3. Ux 1989 Uranium Price Forecast



If the next two waves of material had not been introduced to the market, it would only have been a question of time until these expectations were realized. Certainly by the early 1990s, spot prices would have needed to move back to the \$20 to \$30/lb range in order for supply to meet demand.

On the other hand, without the threat of eastern supplies, the western consolidation may have been more protracted than it was in reality. This phase ended with the final capitulation of the more than 10-million lbs U₃O₈ inventory sold into the market in 1994. By then, western production had fallen to 55-million lbs U₃O₈, or less than half of western demand, while the number of producers fell dramatically.

East/West Integration

1989-1995

The first half of 1989 marked the time when the outlook for the future began changing rapidly. It became generally known at this time that the Russians were starting to offer feed material to their western enrichment customers. With China having already begun making some sales, the activities of the two suppliers marked the beginning of the integration of excess eastern production and inventory into the western markets.

This second wave of consolidation/integration for the western market was intensified by two factors. First, unlike the first consolidation wave, eastern supplies climbed rapidly and were forced mostly onto the spot market. While there were virtually no eastern imports to the west prior to 1989, there was as much as 30-million lbs U_3O_8 being imported annually by 1992.

While this alone would have been a major disruption to the market like it was for nearly every other mineral exported from the USSR during that time, the integration of these supplies was made worse by the dominant use of traders in its disposition. With producers building an antidumping wall against the flow of USSR/CIS material westward, traders were left as the only conduit for such sales. For their part, traders sold CIS supplies on the spot market while for their own accounts they entered into long-term guaranteed price contracts that were enhanced as spot prices weakened under the weight of eastern supplies.

The funneling of CIS supplies into the spot market at the virtual exclusion of long-term contract sales to utilities may have created a greater weakness in spot price than might have been the case otherwise. Had eastern supplies been absorbed at higher rates under long-term sales, a case might be made that spot prices may not have fallen as far and the antidumping actions may not have been as drastic.

Even more than the double-digit price rise for restricted prices last year, the 43% gain for unrestricted prices in 1995 was a sign that the east/west production integration phase may have ended. This is based on the fact that most of the production from Kazakhstan, Russia and Uzbekistan is now committed for sale through long-term contracts to the west with the remainder going to eager buyers on the spot market. The integration process has been greatly enhanced by the decline in production from these republics where output has dropped from roughly 21-million lbs U_3O_8 in 1991-92 to possibly 15-million lbs U_3O_8 or less in 1995.

It appears that CIS production will continue to decline, possibly to less than 10-million lbs U_3O_8 per year over the next several years. Even with the price rebound, production from these mostly low grade, rising cost resources is not expected to turn around anytime soon. As such, the integration of eastern production into the western market appears now to be complete.

Commercial/Military Integration

1992-?

With the first two megatrends completed, the market's future development hinges largely on the outcome of what is believed to be the third and last major phase of the 1980-to-present bear market in uranium. This is the integration of military inventories into the commercial market.

Throughout the HEU discovery process, quantity and timing estimates have risen and fallen as the various technical, legal, economic, political and market considerations change. It now appears that Russian HEU and other U.S. and Russian government supplies might contribute only 15- to 20-million lbs U_3O_8 per year to the market over the rest of the decade, if not longer. This is down from expectations the market held through most of last year that supplies might rise as high as 25- to 30-million lbs U_3O_8 per year by the year 2000.

The end of western inventory consumption and the full integration of eastern production supplies into the western market means that western production may have to rise from last year's level of 69-million lbs U_3O_8 up to 90- to 110-million lbs U_3O_8 by the turn of the century. Given the cost of bringing on this production, a need of close to 90-million lbs U_3O_8 would be expected to require at least \$15/lb while a need closer to 110-million lbs U_3O_8 might require prices closer to \$20/lb.

The main variable in need between the two cases will be the level of HEU that eventually flows to the market. Should these supplies be available to the market at the rate of 15- to 20-million lbs U_3O_8 , western production will need to rise to the upper end of the range. But should HEU sales rise to the 30-million lbs U_3O_8 level by the end of the decade, production may not have to rise much above the 90-million lbs mark.

Of course, one other possibility is that HEU will come to the market at a rate that is less than what is now expected. This lower rate or a boost in demand for whatever reason could require production to rise to much higher levels and

much more rapidly. This would touch off a much more pronounced price spike over the next two years than might otherwise be the case.

Given the still uncertain availability of military supplies, the end date of the commercial/military integration phase remains a question mark. It is possible that, if what we now expect in the way of HEU deliveries becomes reality, we may already have completed the final phase of integration. On the other hand, should HEU and other government supplies increase substantially over the next few years, this phase of integration may continue for a few more years.

Uranium Market Outlook

It is our belief that the 1995-96 rise in spot market prices is part of the upward adjustment phase that is needed in order for supply to meet demand in the future following the three phases of consolidation/integration discussed above. While a rise into the \$15 - \$20/lb range should be high enough to meet producers' needs, the volatility that usually accompanies a period of major readjustment leaves the market vulnerable to yet another boom/bust cycle that could see prices rise substantially higher during this process which could last another year or two.

In retrospect, the conclusion of the three waves of consolidation/integration should prove extraordinary and unique events in the history of the uranium market, a history that started only about 25 years ago.

The severe imbalances in the market were the result of its relative immaturity which is a development that a market can go through only once. While all markets are subject to boom/bust cycles, these moves do not normally last as long nor do the imbalances become as great as they did in uranium. Along with great imbalances come traders who can easily take advantage of suppliers and buyers and who are more prone to protect their own interests than to drive markets to the extreme along a path of least resistance. The uranium market, unlike most other markets, also suffered major interference from government entities and policies that exacerbated its developmental problems.

While the final transition from an inventory driven market to a production driven one may once again result in a boom/bust cycle, it is highly probable that the uranium market at the conclusion of that transition will be far less volatile and devoid of the strong trader dominance that has prevailed for most of the past ten years.

The SWU Market

While uranium may end its current phase of volatility with a long period of stability, the enrichment market by its nature may give way to a far more competitive environment in the future should the market's currently high entrance barriers begin eroding. Major events that could impact the market are changes in the government's influence on the market, either through ownership or import restrictions, the shift in technology from higher cost GPD product to lower cost centrifuge or laser production and changes in how the market itself functions.

Government Influences

The main government factor impacting the enrichment market is the current restriction on Russian SWUs imports into Europe and the U.S. and the defacto restriction on imports into Japan.

Obviously, an important question is whether the Department of Commerce and Euratom will eliminate all restrictions on the sale of Russian SWUs. The export of up to 10-million Russian SWUs per year to the west at what could be substantially lower prices would certainly change the enrichment market quickly. A battle among western enrichers to retain market share and an effort by the Russians to increase market share would be played out through prices, flexibilities and delivery options and shorter term contracts among other things.

Given uranium as the basis for the current restrictions, enrichment restrictions could end as those on uranium are phased out. Alternately, the Russians could be granted a quota for SWUs for some reason. In any case, at some point the restrictions will end and Russian SWUs will come to the market so long as their centrifuges continue operating satisfactorily.

The other government influence is the government's ownership position of the enrichment industry itself. With government ownership comes the ability to influence trade policies, to sidestep antitrust issues, to pressure certain buyers into purchasing from certain suppliers, to keep regulators from forcing high cost plant improvements, to influence the disposal of government inventories and possibly to interfere with the development of competitors in any one enricher's backyard. Notice that each country with an enrichment plant so far has had only one local supplier.

This could change to some degree, though, if USEC privatizes and LES is successful in entering the industry.

A change in the ownership of USEC would likely have important implications for the market. For example:

- Will the Commerce Department feel compelled or pressured to give a private USEC the same protection under trade laws?
- Will entry by LES be more difficult or easier if USEC is privatized?
- Will the U.S. government be less inclined to allow USEC to be the sole purveyor of its inventories and Russian HEU?
- Will customers in certain countries feel less pressured into buying from USEC leading to a drop in USEC's non-U.S. market share?
- How would investment in advanced technologies, including AVLIS, be affected if USEC is privatized?
- Would USEC shut down one of its gaseous diffusion plants?
- Would a privatized USEC elect to market and price its SWUs differently than it does now?
- Will a private USEC be more likely to sell EUP either by enriching tails or integrating into uranium production and conversion?

Consideration of these questions is of special importance to future developments in the enrichment market. They are also important to potential investors in USEC, other enrichers, uranium producers and converters. Depending on how, when and if USEC is privatized, the end results can certainly lead to substantial changes in the market itself.

The Technical Aspects

Almost 70% of the world's enrichment capacity is based on the higher cost gaseous diffusion technology and the remainder on the lower cost centrifuge technology. All of the world's enrichers, including the few smaller ones, are pursuing advanced centrifuges as well as laser enrichment as a means of maintaining or achieving a cost edge. For now, access to enrichment technology and the high initial investment cost represents an entry barrier into the enrichment business.

But once the newer technologies are successfully deployed, the current enrichment suppliers face challenges on two fronts. First, existing suppliers who have access to the newer technologies could gain a cost advantage and thus a competitive advantage as well. But if they use the market's oligopolistic nature to maintain higher prices, the entrance barrier to others who also might successfully develop lower cost technologies will be lowered.

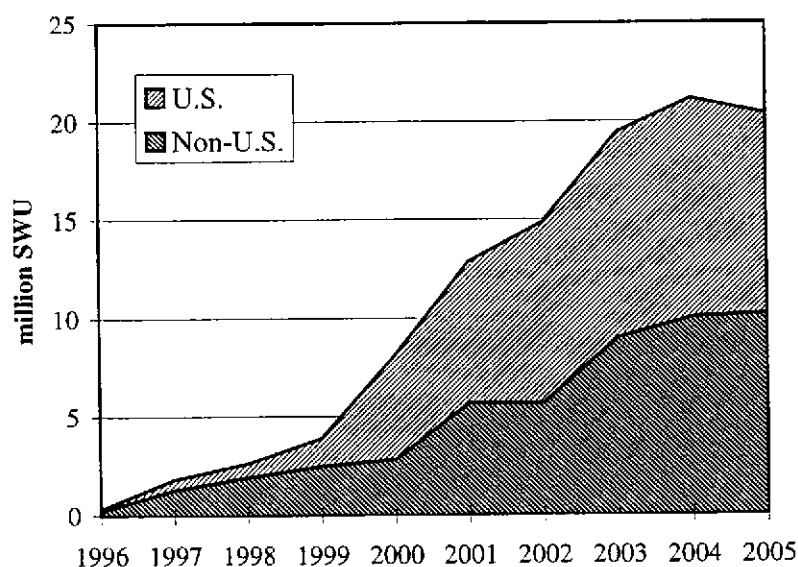
Thus, existing enrichers will be forced not only to stay competitive with other current suppliers but to keep new suppliers from entering the market.

Given the promise of new, lower cost technology, the market's upside potential appears limited. An important consideration will also be a change in the cost makeup of these supplies. The GDPs have a high operating cost that is close to their total cost given their mostly depreciated assets while centrifuges carry a high total cost but minimal operating cost. Once a centrifuge comes on line, though, the GDPs simply cannot compete. A shift in the industry's cost makeup will occur as the shift from GDP dependence to lower cost technologies unfolds. While this could lead to a more volatile market during the transition, the cost to utilities in the end could be sharply reduced.

The Market Itself

With the elimination of secondary supply sources, the enrichment market over the past two years has reverted almost exclusively to a long-term contract market. Unlike contracts of the past, though, the long-term commitments being made this time around have tended to be for roughly five years rather than ten. As shown in Figure 4, uncovered SWU requirements rise sharply starting about five years out.

Figure 4. U.S. and Non-U.S. Uncovered SWU Requirements



Given these market conditions, a supplier attempting to enter the market or increase market share is plumb out of luck for the next several years unless it can buy its way into the market through one of the other suppliers. This is just what Russia is doing via matched SWU sales and the sale of Russian HEU to

USEC. Thus, the removal of restrictions on Russian SWU imports, for instance, is *unlikely to have much of an immediate influence on the market*. The same would be true of a new supplier such as LES.

But a privatized USEC, a determined LES, a new supplier trying to break into the market, an unrestricted Russian enrichment industry, a new entity with access to U.S. or Russian HEU or an aggressive lower cost supplier could easily change the dynamics of the enrichment market. Added to this, the utility industry anticipating potential changes to the enrichment market in its favor may push enrichers into even shorter-term contracts and thus open up the market to more competition in the future.

SWU Market Outlook

The enrichment market faces a lot more uncertainties than the uranium market in the future. Based on the foregoing, it is unlikely that SWU prices will increase. Most certainly, an unbridled rise in SWU prices by overt or covert operation of the oligopoly is not a realistic scenario.

It is more likely that prices will be pressured downward with advances in enrichment technology, with the removal of trade barriers, with the privatization of USEC and with new enrichers attempting to enter the market.