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OA/ID Number: 13829
Folder ID Number: 13829-005

Folder Title:
General Dynamics 9/2/92 [OA 7579]

Stack:	Row:	Section:	Shelf:	Position:
G	26	22	7	5

September 1, 1992
7:00 PM
DYNAMIC2

PRESIDENTIAL REMARKS: GENERAL DYNAMICS
WEDNESDAY, SEPTEMBER 2, 1992
FT. WORTH, TEXAS
5:15 PM

Thank you and good afternoon. It's great to be back home in Texas! (Acknowledgments) Look at this hardware. ((motion to F-16s flanking the platform.)) I guess they had General Dynamics in mind when they said: "Don't Mess With Texas!"

I am pleased to be here this afternoon -- even for a brief visit. I wanted to come to General Dynamics to personally make a statement that concerns all of you, your families and your communities.

I am announcing this afternoon that I will authorize the sale to Taiwan of 150 F-16 A/B aircraft -- made right here in Ft. Worth.

I am proud to offer these aircraft to Taiwan. The F-16 is an example of what only America, and Americans, can do. Only American technology -- only American skill -- could have produced this flawless piece of craftsmanship.

Throughout this century, the marvels of American defense have saved lives, kept the peace, and defended American values. The world has seen the F-16 in action. Over the skies of Desert Storm, the F-16 continued America's tradition of military excellence in more than 13,000 combat sorties.

[[And at this very moment, planes like these may well be flying over Iraq to guarantee that the Bully of Baghdad, Saddam

Yes
AT
Press Office
Pentagon

Hussein, will not brutalize his own people by striking at them from the skies.]]

This sale of F-16s to Taiwan will help us maintain peace and stability in the Asia-Pacific region, in conformity with our law. In the last few years, after decades of confrontation, great strides have been made in reducing tensions between Taipei and Beijing. During this period, the U.S. has provided Taiwan with sufficient defensive capabilities to sustain the confidence it needs to reduce those tensions. That same sense of security has underpinned Taiwan's dramatic evolution toward democracy.

My decision today does not change the commitment of this administration and its predecessors to the three communiques with the People's Republic of China -- our one-China policy and our recognition of the PRC as the sole legitimate government of China. I have always stressed that the importance of the 1982 communique on arms sales to Taiwan lies in its promotion of a common political goal: peace and stability in the area through mutual restraint.

Your airplane -- and this sale -- also sends a larger message to the American people as we consider how we're going to win the global economic competition. The F-16 and the other weapons of defense the world saw perform so brilliantly in Desert Storm were conceived by American research scientists, designed by American engineers, and crafted by American working men and women.

They were guided and operated by the young men and women of our volunteer armed forces -- the very generation that will lead America into the next century.

My message is simple: No nation can defeat us when we set our minds to a task. Now we must turn the same energies and genius to the challenge at home: to secure our economic base, to ensure that the high-wage, high-tech jobs of the future are made in America.

The country that dropped missiles down smokestacks -- that created a technological miracle like the F-16 -- can and will create the products the world needs in the new era of economic competition.

The country that produced the most disciplined and highly skilled fighting force in history can and will find a way to utilize the talents of all our young people.

America's role as a military superpower was not preordained. It took the ingenuity of our workers, the creativity of our scientists, and the experience of our business leaders.

Now we must maintain our lead as the world's economic superpower -- and export superpower. It will require the same magical combination of ingenuity, creativity and experienced leadership -- the same magical combination you've created here at General Dynamics.

[[Let me make one final point. Though the world is a much more peaceful place today, I will continue to fight for a strong defense budget. Some are already proposing defense cuts far beyond levels that our military experts feel are reasonable. I

do not want to see us go back to the days of a hollow army -- or return to the days of an Air Force less strong than our needs require. Not only would some of the cuts proposed in this election cut into the real muscle of our defense -- they would needlessly throw defense workers out of work.]]

As long as I am President, that will not happen.

Thank you for the hospitality, and God bless you.

#

Fact Check Copy

August 31, 1992
7:00 PM
DYNAMICS

PRESIDENTIAL REMARKS: GENERAL DYNAMICS
SEPTEMBER 2, 1992
FT. WORTH, TEXAS
~~X:XX PM~~ 5:15 P.M. ←

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I am pleased to be here this afternoon -- even for a brief visit. But I wanted to come to General Dynamics to personally make a statement that concerns all of you, your families and your communities.

I am announcing this afternoon that I will authorize the sale to Taiwan of 150 F-16 A/B aircraft.

I made this decision in keeping with my responsibility to maintain peace and stability in the Asia-Pacific region. By law the President must provide defense articles and services to Taiwan to promote peace and stability in the region.

This administration and its predecessors also have respected the three communiques with the People's Republic of China that commit the United States to a one-China policy and to recognition of the PRC as the sole legitimate government of China, as well as to limitations on arms sales to Taiwan.

My decision today does not change the character of that commitment. I have always believed the importance of the 1982 communique on arms sales to Taiwan is that it promotes a common political goal: peace and stability in the area through mutual restraint.

Doug Paal
x 5746

Doug Paal
x 5746

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x 5746

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x 5746

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No nation can defeat us when we set our minds to a task. Now we must turn the same energies and genius to the challenge at home: to rebuild our economic base, to ensure that the high-wage, high-tech jobs of the future are made in America.

Doug
Paal
x 5746

"More than
13,480"
Capt. Monica
Aloisio
Air Force
Press Desk
(703) 695-
0640

The country that dropped missiles down smokestacks -- that created a technological miracle like the F-16 -- can and will create the products the world needs in the new era of economic competition.

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America's role as a military superpower was not preordained. It took the ingenuity of our workers, the creativity of our scientists, and the experience of our business leaders.

Now we must maintain our lead as the world's economic superpower -- and export superpower. It will require the same magic combination of ingenuity, creativity and experienced leadership.

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Well, if there's one thing Americans don't lack, it's ambition. And if there's one thing we never do, it's settle for less than we aim for. *If we can build the best fighters in the world*

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#

September 2, 1992

MEMORANDUM FOR CHRISTINA MARTIN

FROM: MICHELE NIX *MN*

SUBJECT: ACKNOWLEDGEMENTS

Per Lynne Kennely, four people will be on stage with POTUS:

- Bill Anders, chairman and CEO of GD
- Jim Mellor, President and COO
- Congressman Pete Geren, 12th District (Fort Worth)
- Congressman Joe Barton, 6th District (Waxahachie)

Two F-16s will flank the stage. A 12-ft model of an F-16 will be on stage; hence our "Don't Mess With Texas" reference. I confirmed all this again this morning with Lynne.

Also, as an aside: I know the big guys want this to stay Presidential and official, not a lot of color, but if you end up needing this tidbit, it could be useful for acknowledgements: Bill Anders is a former astronaut -- crew member of Apollo 8 lunar mission, the first spacecraft to leave the earth and orbit the moon, and served as backup pilot for Apollo 11, the first lunar landing.

GENERAL DYNAMICS

3190 Fairview Park Drive, Falls Church, Virginia 22042-4523
703-876-3000

WILLIAM A. ANDERS

Biographical Sketch

William A. Anders became Chairman and Chief Executive Officer of General Dynamics Corporation on Jan. 1, 1991. He had served as Vice Chairman of the company since Jan. 1, 1990.

Born Oct. 17, 1933, in Hong Kong, Mr. Anders earned a degree in electrical engineering in 1955 from the U.S. Naval Academy, and a master's degree in nuclear engineering in 1962 from the USAF Institute of Technology at Wright-Patterson AFB, Ohio. He completed the Harvard Advanced Management Program in 1979.

Mr. Anders was a U.S. Air Force fighter pilot and engineer until being selected a NASA astronaut. He flew with Frank Borman and James Lovell in 1968 aboard the Apollo 8 lunar mission, the first spacecraft to leave the earth and orbit the moon. He also served as backup pilot for Apollo 11, the first lunar landing. From 1969 to 1973, he was appointed by President Nixon as the Executive Secretary of the National Aeronautics and Space Council.

He was appointed a commissioner of the Atomic Energy Commission (AEC) in 1973 and Chairman of the Nuclear Regulatory Commission when the AEC was renamed in 1975. From 1976 to 1977, he was U.S. Ambassador to Norway.

In 1977, he left government service and joined General Electric Co. as Vice President and General Manager of the Nuclear Energy Products Division, becoming Vice President and General Manager of the Aircraft Equipment Division in 1980. In 1984, he left GE to join Textron as Executive Vice President-Aerospace, moving to Senior Executive Vice President-Operations in 1986.

He is a past member of the Defense Science Board. He currently serves on the board of the Enron Corp., is a trustee of the Battelle Memorial Institute and of Washington University, and is a member of the National Academy of Engineering, the Society of Experimental Test Pilots and Tau Beta Pi.

A retired USAF Reserve Major General and Command Pilot/Astronaut, he holds the Distinguished Service Medals from the Air Force (2), NASA and the Nuclear Regulatory Commission; Air Force Commendation Medal; National Geographic Society's Hubbard Medal for Exploration; Collier, Harmon, Goddard and White Flight Trophies and the American Astronautical Society's Flight Achievement Award and others. He also holds several world flight records.

Mr. Anders and his wife, the former Valerie E. Hoard, have four sons and two daughters.

#

February 1992

GENERAL DYNAMICS

*3190 Fairview Park Drive, Falls Church, Virginia 22042-4523
703-876-3000*

JAMES R. MELLOR

Biographical Sketch

James R. Mellor was elected president and chief operating officer of General Dynamics Corporation effective Jan. 1, 1991 after serving as executive vice president-marine, Land Systems and international since July 1986.

Mr. Mellor was born May 3, 1930 in Detroit and joined General Dynamics as executive vice president-commercial systems and corporate planning and as a member of the board of directors in October 1981. He was named executive vice president-corporate planning and international in June 1982 and executive vice president for marine, business systems and corporate planning in June 1983.

Before joining General Dynamics, Mr. Mellor was president and chief operating officer of AM International, Inc. and a director there since March 1977. Before that, he spent 18 years with Litton Industries in a variety of engineering and management positions, including executive vice president in charge of Litton's Defense Systems Group from 1973 to 1977. From 1970 to 1973, he served as senior vice president of the Communications and Electronics Data Systems Group, which was later integrated into the Defense Systems Group. Prior to that, he served as vice president of the corporation and president of the Data Systems Division. With that division, he also served as vice president of business development, vice president of engineering and director of advanced development.

Mr. Mellor was also with Hughes Aircraft Co. from 1955 to 1958, serving as a research engineer and then as section manager in charge of electronic systems design.

While at Hughes and in his first years at Litton, he received three patents relating to large screen display and digital computing technology. He has also authored more than 30 articles in national and international publications covering a wide range of management and technical subjects.

GENERAL DYNAMICS

3190 Fairview Park Drive, Falls Church, Virginia 22042-4523
703-876-3000

JAMES R. MELLOR

Page 2

Mr. Mellor graduated from the University of Michigan in 1952 with a bachelor of science degree in electrical engineering and mathematics. He was awarded a master of science degree from the same university in 1953.

Mr. Mellor was a consultant to the Department of Defense from 1972 to 1975. He has also served as chairman of the Shipbuilders Council of America, the Computer and Business Equipment Manufacturers Association and as a member of the board of directors of the Armed Forces Communications and Electronics Association, the National Security Industrial Association, the Navy League of the United States, and the board of councilors of the University of Southern California Business School.

He is presently on the board of directors of the Bergen Brunswick Corp., the Kerr Corp., and Computer Sciences Corp. and on the national advisory committee of the University of Michigan. He is a member of several other professional and social organizations, including Sigma Xi, Tau Beta Pi, Eta Kappa Nu and Phi Kappa Phi honorary fraternities.

He was awarded the "Officer of the Order of the Crown" by His Majesty King Baudouin of Belgium in December 1987.

Mr. Mellor and his wife, Suzanne, have three children.

#

February 1992

**MEMORANDUM
OF CALL**

Previous editions usable

TO:

YOU WERE CALLED BY-

YOU WERE VISITED BY-

OF (Organization)

PLEASE PHONE ▶

FTS

AUTOVON

WILL CALL AGAIN

IS WAITING TO SEE YOU

RETURNED YOUR CALL

WISHES AN APPOINTMENT

MESSAGE

7000 for Ft Worth

RECEIVED BY

DATE

TIME

63-110 NSN 7540-00-634-4018

U.S.G.P.O.: 1983 - 421-529/321

STANDARD FORM 63 (Rev. 8-81)
Prescribed by GSA
FPMR (41 CFR) 101-11.6

GENERAL DYNAMICS

3190 Fairview Park Drive
Falls Church, Virginia 22042

FAX #: 703-876-3043

FACSIMILE TRANSMISSION HEADER SHEET

Pages: Cover + 3

TO: MICHELLE NIX FAX: 202-456-6218

FROM: FLO STARK

DATE: 2 SEPTEMBER 1992

SUBJECT: BIOS

=====

BIOS ON WILLIAM A. ANDERS AND JAMES R. MELLOR TO FOLLOW.

Please call Flo Stark at 703-876-3010 if you have problems receiving this fax transmission.

THE WHITE HOUSE
WASHINGTON

September 1, 1992

MEMORANDUM FOR THE PRESIDENT

THROUGH: STEVE PROVOST *SP*
FROM: ANDREW FERGUSON *CF*
SUBJECT: GENERAL DYNAMICS EVENT

I. SUMMARY

On Wednesday, September 2, at 5:15 p.m., you will address approximately 7,000 General Dynamics employees at Hangar 8 near the General Dynamics ramp at Carswell AFB in Fort Worth, Texas.

II. DISCUSSION

In your remarks (6 minutes, on cards), you announce your decision to sell 150 F-16 A/B aircraft to Taiwan. Additionally, you assert confidence that America will continue in its role as both a military and an economic superpower.

September 1, 1992
11:00 AM
DYNAMICS

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This decision will help us maintain peace and stability in the Asia-Pacific region, in conformity with our law. In the last few years, after decades of confrontation, great strides have

been made in reducing tensions between Taipei and Beijing. During this period, the U.S. has provided Taiwan with sufficient defensive capabilities to sustain the confidence it needs to reduce those tensions. That same sense of security has underpinned Taiwan's dramatic evolution toward democracy.

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ensure that the high-wage, high-tech jobs of the future are made in America.

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We know about those qualities down here in Texas. After all, we all know the story about the Yankee businessman who moved to Ft. Worth. After weeks of hearing about the virtues of our state, he'd finally had enough. He got up from a business meeting and hollered: "Look: I was born a Yankee, I was raised a Yankee, and I'm going to die a Yankee." A voice rose from the back of the room. "What's a matter, son? Lack ambition?"

Well, if there's one thing Americans don't lack, it's ambition. And if there's one thing we never do, it's settle for less than we aim for. With the brainpower and skill of the men

and women who built the F-16, we will not only compete in the
global economy, we will win!

Thank you for the hospitality, and God bless you.

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Withdrawal/Redaction Sheet (George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01. Memo	Steve Provost to Bob Zoellick, re: F-16 Announcement. (1 pp.)	08/31/92	P-5	

Collection:

Record Group: Bush Presidential Records
Office: Speechwriting, White House Office of
Series: Speech File, Backup
Subseries:
WHORM Cat.:
File Location: General Dynamics 9/2/92

**Open on Expiration of PRA
(Document Follows)
By SN (NLGB) on 4/8/2005**

Date Closed: 12/3/2004	OA/ID Number: 07579
FOIA/SYS Case #:	
Re-review Case #: 2004-2265-S	
P-2/P-5 Review Case #:	
MR Case #:	Appeal Case #:
MR Disposition:	Appeal Disposition:
Disposition Date:	Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advise between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE

WASHINGTON

August 31, 1992

MEMORANDUM FOR BOB ZOELICK

FROM: STEVE PROVOST 

RE: F-16 Announcement

Here's Andy Ferguson's draft of the F-16 announcement, which is being staffed. I'm concerned about perceptions of pandering.

Please note that last week in Fort Worth, Governor Clinton came out in favor of the V-22. Governor Clinton has now publicly stated his support for two controversial projects (the Seawolf Sub is the other) without stating any projects he will cut (except perhaps SDI) and promising America Draconian defense cuts.

We obviously can't put this in the President's remarks, but we may want to have Torrie Clark "spin" this line at the event to blunt attacks on us for using defense projects to buy votes in key states.

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Withdrawal/Redaction Sheet (George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02. Memo	Steve Provost to Bob Zoellick, re: F-16 Announcement. (1 pp.)	08/31/92	P-5	

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- P-1 National Security Classified Information [(a)(1) of the PRA]
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- (b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE
WASHINGTON

Andy
See Me
JP

August 31, 1992

MEMORANDUM FOR BOB ZOELLICK

FROM: STEVE PROVOST 
RE: F-16 Announcement

Here's Andy Ferguson's draft of the F-16 announcement, which is being staffed. I'm concerned about perceptions of pandering.

Please note that last week in Fort Worth, Governor Clinton came out in favor of the V-22. Governor Clinton has now publicly stated his support for two controversial projects (the Seawolf Sub is the other) without stating any projects he will cut (except perhaps SDI) and promising America Draconian defense cuts.

We obviously can't put this in the President's remarks, but we may want to have Torrie Clark "spin" this line at the event to blunt attacks on us for using defense projects to buy votes in key states.

August 31, 1992
7:00 PM
DYNAMICS

PRESIDENTIAL REMARKS: GENERAL DYNAMICS
SEPTEMBER 2, 1992
FT. WORTH, TEXAS
X:XX PM

Thank you and good afternoon. It's great to be back home in Texas! (Acknowledgments)

One more P on positive Tex. visit. Not an attack → I am pleased to be here this afternoon -- even for a brief visit. But I wanted to come to General Dynamics to personally make a statement that concerns all of you, your families and your communities.

I am announcing this afternoon that I will authorize the sale to Taiwan of 150 F-16 A/B aircraft.

Insert A → ~~I made this decision in keeping with my responsibility to~~
∩ This decision will help us
maintain peace and stability in the Asia-Pacific region, ~~By law~~
in conformity with our law.
~~the President must provide defense articles and services to~~
Insert B → ~~Taiwan to promote peace and stability in the region.~~

of T This administration and its predecessors also ~~have respected~~
own the three communiques with the People's Republic of China ~~that~~
STCL ~~commit the United States to a one-China policy and to~~ *own* recognition
of the PRC as the sole legitimate government of China, ~~as well as~~
~~to limitations on arms sales to Taiwan.~~

My decision today does not change the character of ~~that~~
He commitment, *stressed that* I have always ~~believed~~ the importance of the 1982
communique on arms sales to Taiwan is that it promotes a common
political goal: peace and stability in the area through mutual
restraint.

The country that dropped missiles down smokestacks -- that created a technological miracle like the F-16 -- can and will create the products the world needs in the new era of economic competition.

The country that produced the most disciplined and highly skilled fighting force in history can and will find a way to utilize the talents of all our young people.

America's role as a military superpower was not preordained. It took the ingenuity of our workers, the creativity of our scientists, and the experience of our business leaders.

Now we must maintain our lead as the world's economic superpower -- and export superpower. It will require the same magic combination of ingenuity, creativity and experienced leadership.

We know about those qualities down here in Texas. ^{After all,} We've all heard the story about the Yankee businessman who moved to Ft. Worth. After weeks of hearing about the virtues of our state, he'd finally had enough. He got up from a business meeting and hollered: "Look: I was born a Yankee, I was raised a Yankee, and I'm going to die a Yankee." A voice rose from the back of the room. "What's a matter, son? Lack ambition?"

Well, if there's one thing Americans don't lack, it's ambition. And if there's one thing we never do, it's settle for less than we aim for.

Thank you for the hospitality, and God bless you.

#

UNCLASSIFIED TELEFAX

Secretary of the Air Force
Office of Public Affairs - Media Relations Division
The Air Force Press Desk
Voice (703) 695-0640/5766/6994 (DSN 225)
Fax: (703) 6214-7486 (DSN-224)

This telefax consists of 5 pages including this cover sheet

FROM: CAPT MONICA Aloisio SAF/PAM (703) 695-0640

TO: MICHELLE NIX

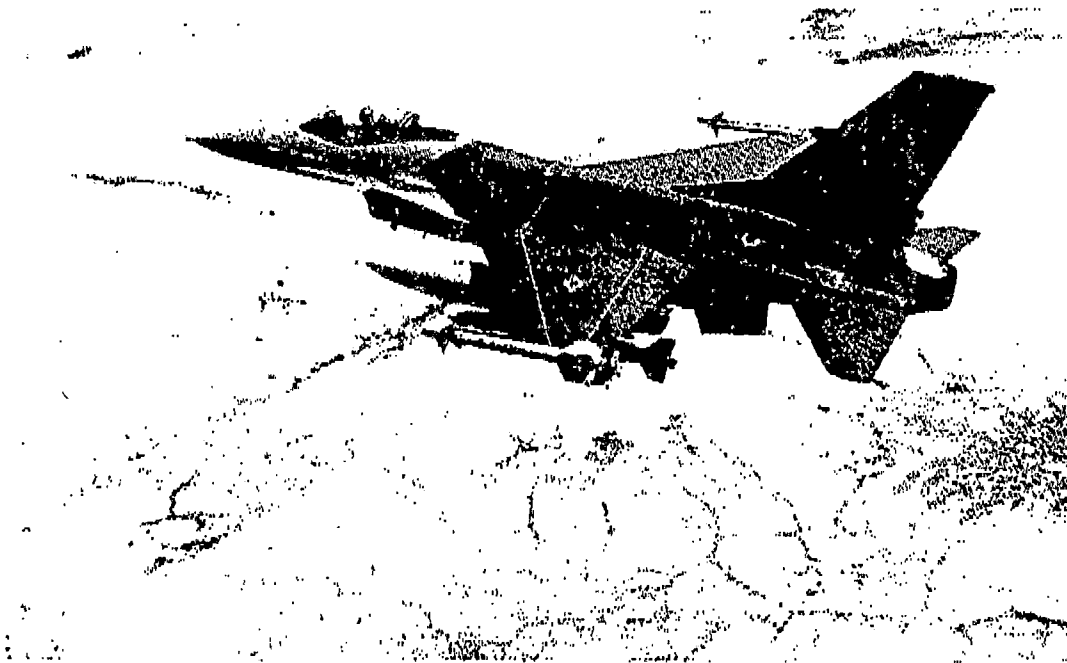
SUBJECT:

F-16 PERFORMANCE IN DESERT SHIELD/STORM.

INFO TAKEN FROM TITLE V FINAL REPORT TO

CONGRESS

F-16 FIGHTING FALCON MULTI-ROLE AIRCRAFT



Mission

The F-16 Fighting Falcon is the Air Force's primary multi-role aircraft, able to deliver a wide range of air-to-surface and air-to-air weapons. The F-16 was used during Operation Desert Storm for strategic attack, offensive counter air, suppression of enemy air defenses, air interdiction, and close air support.

System Data (F-16C)

Prime Contractor: General Dynamics Corp.

Crew: One Pilot

Initial Operational Capability: 1984

US Inventory: 1759

Length: 49.3 ft

Wingspan: 32.8 ft

Weight: 42,300 lb maximum takeoff

Cruise Speed: High subsonic

Range: 510 to 600 miles (High Profile)

Propulsion: One F110-GE-100 turbofan engine

Armament: Most air-to-air missiles and air-to-surface missiles and bombs

Employment

The F-16's involvement in Operations Desert Shield and Desert Storm began on 10 August with the deployment of 24 F-16Cs to Al-Dhafra, United Arab Emirates (UAE). A second squadron of F-16Cs arrived there the next day. Upon arrival, 12 F-16Cs were reconfigured for air-to-air combat and placed on alert. On 13 August, F-16s from Al-Dhafra, UAE, began flying training and orientation flights as aircraft and weapons continued to arrive in theater. As munition stockpiles built up, additional aircraft were placed on CAS alert to respond to any Iraqi incursion into Saudi Arabia.

From September through January, F-16s continued to arrive in theater. As the units arrived, they trained alongside other Coalition air forces in the Gulf region. F-16s refined established tactics and techniques and developed new procedures tailored to the desert environment. Specific training included medium altitude weapon deliveries and large force operations. Training also included extensive use of air refueling and airspace control procedures. During this time, Low Altitude Navigation Targeting Infrared for Night (LANTIRN) units received a full complement of navigation pods and accomplished Operational Test and Evaluation of this portion of the weapons system while preparing for and executing Operation Desert Storm. The complete LANTIRN system consists of a navigation pod and a targeting pod containing a laser designator, all integrated and mounted externally beneath the aircraft; however, because of the limited number available, no F-16s were equipped with LANTIRN targeting pods.

A total of 251 F-16s participated in Operation Desert Storm, attacking oil refineries, communications facilities, surface-to-air missile sites, Scud facilities, Republican Guard headquarters, airfield facilities, runways, aircraft bunkers, and chemical weapons bunkers. On 19 January, 56 F-16s attacked the Baghdad Nuclear Research Center in the largest single raid of the war. During Operation Desert

Storm, F-16s continued to strike targets supporting all facets of the air campaign from strategic attack to CAS.

During the air campaign, F-16s used a two-aircraft formation as the basic fighting element. This basic two-aircraft element combined with other elements to form flights of four aircraft. These flights of four were then joined with other flights to form strike packages as large as 56 aircraft. In the early stages of the campaign, large packages were routine. However, as air supremacy was gained and targeting priorities changed, F-16s were used more as two-aircraft elements or as flights of four rather than in large packages.

Typical weapons loads used during Operation Desert Storm were:

- six MK-82s (500lb general purpose bomb) or,
- two MK-84s (2000Lb general purpose bomb) or,
- four CBU-52/58/71 (cluster bomb unit, anti-personnel) or,
- four CBU-87 (Combined effects munition) or,
- four CBU-89 (Gator mine, anti-personnel) or,
- four AGM-65 Maverick (electro-optical/IR guided missile) or,
- two AGM-69/88 (Shrike/high-speed anti-radiation missile)
- 510 rounds 20 mm Armor Piercing Incendiary/High Explosive Incendiary
- two AIM-9Ms

There was a requirement during the conflict for current and accurate target information in the interdiction mission area. This role was filled by F-16s in the Killer Scout mission, which essentially was armed reconnaissance that coordinated air strikes. Airspace was divided in 36x36 mile kill boxes. The Air Tasking Order assigned kill boxes. In the assigned boxes, scouts provided continuous daylight coverage for a two-aircraft formation and located targets in their area. Scouts provided target type and location updates as well as threat status and position information of other friendly aircraft. The intent was to strike assigned targets as soon as possible and keep traffic flowing through the Kuwait Theater of Operations.

Performance

F-16s proved effective when using GPS in conjunction with off-board sensors and LANTIRN.

Infrared Mavericks (AGM-65D/Gs) provided F-16s with a precision weapon that allowed standoff at medium altitude. When used in conjunction with the radar it provided beyond visual range targeting.

Five F-16s were lost in combat.

OBSERVATIONS

Accomplishments

- More than 13,480 combat sorties were flown against targets including airfields, Republican Guard positions and strategic targets near Baghdad.
- F-16s had a mission capable rate of 88.8 percent, and the highest use rate of all USAF aircraft in theater (1.35 sorties per aircraft per day).
- F-16s using GPS, on board radar, and LANTIRN Forward-looking infrared proved successful.

Issue

- The F-16 LANTIRN units are now receiving and qualifying with their targeting pods.

National Semiconductor

Arlington manufacturing plant
Semiconductors, duh

announced in February a plan to increase its chip-making capacity at Arlington

Texas Instruments

Dallas

software, computers (parallel, personal [notebook],
calculators, onboard computers for F-16s)

E-Systems

Garland (outside Dallas)

defense company, developer and producer of electronic systems and products in the areas of intelligence, reconnaissance and surveillance systems, command and control, electronic warfare, communications and data systems. (e.g., secure intercoms; voice, data and visual information subsystems)

4TH STORY of Level 1 printed in FULL format.

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The Reuter Business Report

July 30, 1992, Thursday, BC cycle

LENGTH: 375 words

HEADLINE: GENERAL DYNAMICS TO AX 5,800 JOBS AT F-16 DIVISION IN TEXAS

DATELINE: FORT WORTH, Texas

KEYWORD:
DEFENSE-WARPLANES

BODY:

General Dynamics Corp., the nation's second-biggest defense contractor, has announced plans to lay off 5,800 people here due to production cuts for the F-16 fighter aircraft.

The layoffs, amounting to 29 percent of the Fort Worth division's 20,000 workers, will be implemented by the end of 1994, the company said in a statement released late Wednesday.

Notices will be issued to the first 200 employees in coming weeks. Another 650 to 700 are scheduled to lose their jobs during the remainder of the year.

Fifteen hundred layoffs are scheduled for the first three months of next year and will be followed by 800 to 900 job cuts during each subsequent quarter through 1994.

General Dynamics executives, who blamed the layoffs on the general post-Cold War decline in defense spending, said F-16 production will fall to 4 planes a month by the middle of the decade.

The company produced as many as 30 a month in the mid to late 1980s and currently manufactures 16.

The U.S. Air Force has been the biggest buyer of F-16s, which cost \$16 million apiece. During the 1980s, the Air Force ordered as many as 180 planes a year. Orders are set to fall to 24 next year.

The Falls Church, Va.-based company said initial layoffs will be more than offset by a temporary employment gain to get the Fort Worth division back on schedule for F-16 deliveries after an intensive quality improvement program.

General Dynamics also expects to hire more engineers for a new F-22 fighter aircraft, which the Fort Worth division is developing with Lockheed Corp. and Boeing Co. as a replacement for McDonnell Douglas Corp.'s F-15 fighter.

In a letter to employees, General Dynamics Executive Vice President Gordon England said the company is restructuring the Fort Worth operations by simplifying procedures, eliminating management, reducing overhead and out-sourcing some non-competitive manufacturing activities.

The Reuter Business Report, July 30, 1992

"We feel that we must fundamentally restructure our operations to be more competitive at low volumes of production- in other words, to be the highest-quality and lowest-cost supplier of tactical military aircraft even at low volume," England said.

General Dynamics stock was unchanged at \$78 a share Thursday on the New York Stock Exchange.

6TH STORY of Level 1 printed in FULL format.

The Associated Press

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June 18, 1991, Tuesday, BC cycle

SECTION: Business News

LENGTH: 303 words

HEADLINE: Wins \$47 Million Contract for F-16 Computer

DATELINE: FORT WORTH, Texas

KEYWORD: Texas Instruments -Contract

BODY:

General Dynamics Corp. has agreed to award a \$47 million contract to Texas Instruments Inc. to produce a mission computer upgrade for the F-16 Fighting Falcon, officials of both companies announced.

If the modular mission computer core cluster being developed for GD goes into production, it could mean revenues of more than \$150 million for TI's Defense System & Electronics Group over five to 10 years, TI officials said.

The contract was announced Monday in Paris during a morning briefing at the 1991 Paris Air Show.

The modular digital computer would replace three current computers on the F-16 and provide processor power to support growth capabilities.

The new computer would allow General Dynamics to add add high-tech avionics systems more easily to the jet fighter, such as forward-looking infrared radar or digital terrain-following functions.

"This is the first major retrofit of existing programs using this technology," said John Harkins, manager of business development and advanced technology for the TI group.

"They have taken three computers out of the aircraft and replaced it with one integrated system," Harkins said.

TI officials said the company was informed of the news last week. General Dynamics is expected to award the contract in November.

The development contract will allow Texas Instruments to build 31 units, which will be delivered to General Dynamics for engineering evaluation.

A Texas Instruments spokeswoman said the contract is not expected to add more jobs to TI's north Dallas employment. Over the past year, TI has trimmed hundreds of jobs in its Defense Systems & Electronics Group because of the nation's shrinking defense budget.

The Associated Press, June 18, 1991

"We have no plans to add jobs right now," said TI spokeswoman Becky Setzler.
"What we'll do is utilize the people we've got."

2ND STORY of Level 1 printed in FULL format.

Copyright 1992 Chicago Tribune Company
Chicago Tribune

June 24, 1992, Wednesday, NORTH SPORTS FINAL EDITION

SECTION: BUSINESS; Pg. 3; ZONE: C

LENGTH: 408 words

HEADLINE: Multimedia effort by Apple, Toshiba

BYLINE: From Chicago Tribune wires.

BODY:

The rapid pace of consolidation and alliances in the computer industry continued Tuesday, as Apple Computer Inc. said it will develop multimedia products with Toshiba Corp., while IBM and Apple named A. Nathaniel Goldhaber president and chief executive of their Kaleida joint venture.

International Business Machines Corp. and Apple trumpeted Kaleida as "a key component in their sweeping October 1991 technology alliance." The joint venture will develop and promote new multimedia software technologies, of the type that Apple will provide to its new venture with Toshiba, which is its third recent tieup with a Japanese consumer electronics company.

Apple and IBM could be ready to make a foray into the information-services industry, Apple Chairman John Sculley said at a technology conference.

In another development Tuesday, Texas Instruments Inc. said it will sell its computer systems and services business to Hewlett-Packard Co. and concentrate instead on other computer markets where it is stronger.

Texas Instruments, whose product lines range from computer chips to consumer electronics, signed a letter of intent with Hewlett-Packard to sell its line of commercial UNIX-based 1500 multiuser computers.

Details of the prospective sale weren't disclosed, but analysts estimated the division is worth \$200 million a year in revenues and is marginally profitable.

The line, including printers, is widely used at airline ticket counters. Texas Instruments also supplied Ford Motor Co. with a computerized system that looks up and displays information on auto parts.

Hewlett-Packard will retain 450 of the 1,600 people employed by the Texas Instruments operation.

Apple and Toshiba said the first product of their alliance will play special compact discs that contain video, audio, graphics and text. It will go on the market in mid-1993 and cost less than \$1,000, Apple Vice President Shigechika Takeuchi said in Tokyo.

A consumer could buy a CD travel guide, for example, that provides sound, moving images and information about tourist destinations in response to questions from the user.

Toshiba will make the equipment, which will be sold under both the Apple and Toshiba brands, the companies said.

Apple already has struck agreements with Japan's Sony Corp. and Sharp Corp. Sony makes Apple's PowerBook 100 portable computer, and Sharp will make Apple's hand-held "electronic assistant," called Newton.

TERMS: PRODUCT; RESEARCH; TECHNOLOGY; AGREEMENT; PROFILE

7TH STORY of Level 1 printed in FULL format.

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Publishing Co. 1991

May 2, 1991

SECTION: Vol. 36; No. 9A; Pg. 38

LENGTH: 1754 words

HEADLINE: Welcome relief in the South Central states: Texas and Oklahoma are optimistic about this year's hiring; Regional profile: Texas and Oklahoma

BYLINE: Colborn, Kate

BODY:

Texas and Oklahoma are optimistic about this year's hiring

Things are finally looking up for Texas and Oklahoma. Recruiters and search professionals agree that, although Texas has suffered layoffs that left thousands of engineers out of work, the pace of electronics hiring will pick up in the Lone Star state in 1991. For Oklahoma, a five-year economic development plan that it launched in 1988 is now starting to pay off.

Tough times have not yet completely eased, however. In Texas, staff cuts at General Dynamics (Ft Worth) and Texas Instruments (Dallas) left several thousand Dallas-area people "with engineer after their name" out of work, says Bob Brooke, a technical recruiter and director of the computer division of search firm Fortune Personnel (San Antonio).

The major problem in Texas, and in other areas with a strong defense electronics presence, is job fit--or rather lack of it. Engineers no longer needed for defense work do not fit exactly into the positions available at the semiconductor, telecommunications, and computer companies that are hiring. "Companies want a tremendous amount of match on the technology," Brooke says, and are unwilling even to interview engineers without it.

Texas Instruments is the area's catalyst company, says Don Hay, senior associate in the Dallas office of Source Engineering. Because of a slowdown in TI's defense sectors, hiring ground to a halt last June, says Hay. (Texas Instruments did not provide hiring information for this article despite our requests for it.) TI announced a 1000-person staff reduction in mid-1990. Cancellation of the Navy A-12 aircraft program spurred General Dynamics to lay off more staffers.

Compounding the problem, defense contractors often pay higher salaries than commercial companies. "Engineers have to be ready to take a cut and realize that their experience doesn't count as heavily as it might," says Michael Langford, employment manager at Tandy Technologies (Ft Worth), which is looking for a significant number of engineers this year. "If I have to choose between 10 years in the defense business and five years in our kind of business, I'll hire the person who has done what we do.

Confidence remains

Despite the drop in defense contracts, many members of Texas's high-tech community are confident that the area has a strong future. Rolm Systems, Tandy, Fujitsu, and Ericsson will all move into new buildings this year, and Hitachi Semiconductor foresees significant growth over the next five years, although its hiring for the next few months is curtailed.

"I'm very encouraged about the growth in the high-tech industry in the Dallas -Ft Worth area," says Ron Brittain, general partner of Seven Rosen Bayless Management Co (Dallas), the venture capital firm that financed Compaq (Houston) and Convex (Richardson). SRB sees a steady stream of engineers looking for seed capital, Brittain says, including several recent prospects who are considering leaving their large companies. There is still venture money available, too, he adds. For the last few years, SRB has specialized in early-stage investments, making six to nine each year.

Texas electronics also has a hefty semiconductor segment. In addition to Texas Instruments, the state has outposts of such companies as Motorola, Cypress Semiconductor, AMD, Hitachi, and SGS-Thomson, as well as a number of home-grown companies like Crystal Semiconductor, Cyrix Corp, and Ross Technology, a three-year-old subsidiary of Cypress that considers itself a Texas company.

Most anticipate growing modestly this year, although only Ross describes its hiring as "aggressive." The company will add as many as 50 engineers this year, according to human resources manager Michele Fore. The last eight engineers Ross hired relocated from areas outside Austin; two of them were from outside Texas. Relocation, especially from out of state, has been rare in Texas, according to Fortune's Brooke. Several companies in addition to Ross have indicated willingness to relocate an engineer who fits their needs.

Telecomm's hiring

Richardson, just north of Dallas, has worked hard to promote itself as a desirable address for telecommunications companies--and with some success. Northern Telecom and its Bell Northern Research (BNR) lab have been in Richardson for some time. Several other international companies, like Sweden's Ericsson and Japan's Fujitsu and NEC, are more recent arrivals.

Most of these telecommunications companies appear healthy, and several are hiring actively. BNR intends to hire as many as 200 engineers for its lab, which does applied research for cellular and other wireless communications products. Northern Telecom recently reorganized its product and marketing groups and is now hiring for its research staff.

There is also considerable growth at the Ericsson's Network and Radio Systems divisions (Richardson). Both grew significantly last year and expect continued expansion. Tisha Motley, senior recruiting specialist for Network Systems, has had to look outside the Dallas area for engineers. "The Dallas suburbs are still good to recruit into," she says, mainly because of the reasonable housing market and good suburban schools. Both divisions have hired a few former employees of General Dynamics and other defense contractors, but are more likely to choose an engineer with a background in commercial telecommunications.

Texas computer companies also are hiring, some quite actively. Compaq is said to be adding several hundred engineers this year (Compaq did not provide

hiring information despite our requests for it). Dell Computer Corp (Austin) and Compaq (Austin), which both began as mail-order computer suppliers, need engineers in a wide range of disciplines, too.

Even a few defense companies will add engineers in 1991. LTV's Missiles and Electronics Group (Dallas), which has not added to its staff for several years because of its parent's reorganization, now needs engineers with five years or less of experience. "We're trying to build up the less-experienced end of the workforce," says spokesperson Tommy Wilson.

E-Systems (Garland, Greenville), which mainly builds electronic warfare and avionics systems, is hiring. It's also moving into some commercial areas: E-System's Garland division is working on a mass-storage product, developed jointly with Ampex Corp (Redwood City, CA), which will replace more than 1 million reels of standard computer tapes that currently contain expiration dates of Mobil Oil credit cards.

Yet another defense company is trying to become involved in nondefense work. Lockheed's Austin Division just won a US Army contract for a portable weather satellite terminal. The contract also includes an open government purchase order, which allows any government agency, including nondefense departments, to order the terminals with minimal paperwork, says spokesperson Sylvia Simpson.

Interphase Corp (Dallas), which makes board-level, data-communication products, added 40 engineers in 1990 and will probably hire as many this year. Linda Hanna, human resources manager, has had applicants from as far away as Boston. "I've never seen them come from the East Coast before," she says.

Over the border

Across the border in Oklahoma, the government is working hard to broaden the state's industrial mix. Bolstered by groups like the Oklahoma Chamber of Commerce and Industry (Oklahoma City), the state has recently set up a number of funding and support mechanisms to encourage both established companies and startups to settle in Oklahoma. Historically, Oklahoma's most visible technology-based industry has been petroleum. In fact, the oldest energy research lab in the country, the National Institute for Petroleum and Energy Research (Bartlesville), was founded there in 1918.

In 1987, Oklahoma tried to build its electronics base by bidding for the Department of Energy's Superconducting Supercollider project, which was eventually awarded to Texas. Worse, the state even failed to make the "short list" of best-qualified sites. The sting of rejection, however, has galvanized state and private organizations, like the Oklahoma Chamber of Commerce and Industry (OCCI), to increase efforts to build an electronics base in Oklahoma.

Oklahoma is not yet a hotbed of technology, but Dick Rush, executive director of OCCI, believes the state is on the verge of significant growth. The current recession has not affected local companies extensively, he says--unlike in 1982 and 1986, when oil prices dropped suddenly. "We had our own boom and bust, outside the mainstream of the national economy," Rush explains, "and that has protected us from the national recession."

The state legislature is supportive of the OCCI and other groups' efforts to attract more technology-based industry, too, adds Rush. Earlier this year,

the legislature responded with remarkable speed to several measures designed to lure a United Airlines maintenance facility to Oklahoma City. Among them was a referendum to raise the sales tax \$ 0.01. Voters approved, and the funds would be used to sweeten the United offer. If United does decide to locate in Oklahoma City, the tax will go into effect.

A diverse bunch

Currently, Oklahoma electronics companies are modestly sized and diverse. Products include telecommunications services, aircraft cockpit and cabin simulators, and electronic remote-ordering systems for fast-food restaurants. A number are involved with electronic controls and instruments for oil exploration and production. In most of these companies, electronics skills are secondary to a knowledge of the petroleum industry's geologic and chemical issues.

Seagate (Oklahoma City), the California-based disk drive maker, acquired a significant presence in Oklahoma when it bought Control Data's Imprimis operations in the late 1980s. The 2000-person operation needs engineers with disk-drive design experience, says a company spokesperson.

Two other sizeable Oklahoma companies, both in Tulsa, are involved with telecommunications: Seiscor Technologies, a Raytheon company, and Williams Telecommunications (WilTel), a subsidiary of pipeline carrier Williams Corp. Seiscor will hire some engineers this year, although not as many as in 1990. WilTel, which was formed six years ago, also has slowed its growth for now.

Kate Colborn is a Center Harbor, NH-based writer specializing in high-tech career topics.

GRAPHIC: map; Table; Caption: Economic snapshot: Texas and Oklahoma. map; Hiring at a glance. table

SUBJECT:
Electronics industry, Employment; Oklahoma, Employment; Texas, Employment

GEOGRAPHIC:
Oklahoma; Texas

COMPANY:
Seagate Technology Inc., Recruiting; Bell-Northern Research Ltd., Recruiting; Ericsson Inc., Recruiting; SIC: 3661; 3571; TICKER: SGAT; NT

LOAD-DATE-MDC: July 11, 1991

CO:
SEAGATE TECHNOLOGY INC;

TS:
SGAT (NASDAQ);

IND:
071 COMPUTERS;

4TH STORY of Level 1 printed in FULL format.

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The Reuter Business Report

June 23, 1992, Tuesday, BC cycle

LENGTH: 507 words

HEADLINE: TEXAS INSTRUMENTS SELLS COMPUTER SYSTEMS BUSINESS TO HEWLETT

BYLINE: By Mike Clancy

DATELINE: DALLAS

KEYWORD:
COMPUTERS -UNIX

BODY:

Texas Instruments Inc. said Tuesday that it will sell its computer systems and services business to Hewlett-Packard Co. and concentrate instead on other computer markets where it is stronger.

Industry analysts said the deal showed Texas Instruments still moving away from computer hardware in favor of software and software development.

"It is a continuation of management's stated strategy and is an important step in that strategy," said Tom Thornhill, analyst with Montgomery Securities.

Texas Instruments, whose product lines range from computer chips to consumer electronics, signed a letter of intent with Hewlett-Packard to sell its line of commercial UNIX-based 1500 multiuser computers.

Details of the prospective sale were not disclosed, but analysts estimated the division is worth \$200 million a year in revenues and is marginally profitable.

Thornhill said Texas Instruments was not selling its computer manufacturing facilities and will supply products for the 1500 computer line for some time.

The line, including printers, is widely used at airline ticket counters. Texas Instruments also supplied Ford Motor Co. with a computerized system that looks up and displays information on auto parts.

Hewlett-Packard will retain 450 of the 1,600 people employed by Texas Instruments' computer systems and services business.

Texas Instruments was quick to say the sale will not involve its TI Information Technology Group, which makes products such as notebook-size personal computers, printers, software and telecommunications systems.

"The planned sale is consistent with TI's strategy in information technology to concentrate our investment and emphasis on software productivity tools, as well as on hardware where we have a sustainable competitive edge," Texas Instruments Vice President John White said in a statement.

Texas Instruments stock rose 37.5 cents to close at \$33.25 a share on the New York Stock Exchange.

Shares in Palo Alto, Calif.-based Hewlett-Packard climbed 75 cents to \$69.125 a share on the Big Board. But traders attributed the gain to a Wall Street analyst telling investors to buy the stock, rather than news of the purchase.

Hewlett-Packard, which makes measurement and computation systems, described the move as being part of an overall plan to expand in the commercial UNIX market.

The UNIX operating environment, developed by American Telephone & Telegraph Co., enables networks of personal computers based on different software platforms to communicate with each other.

"This is the latest step in our strategy to aggressively expand our position in the commercial UNIX market," said Hewlett-Packard Executive Vice President Lewis Platt.

"This acquisition will accelerate our momentum in the UNIX arena by giving us access to new markets through TI's extensive value-added reseller network."

Since 1986, Texas Instruments has shipped more than 125,000 multiuser computer systems to customers in the United States, Canada, Europe, the Middle East, Asia, Africa and Latin America.

August 31, 1992
7:00 PM
DYNAMICS

PRESIDENTIAL REMARKS: GENERAL DYNAMICS
SEPTEMBER 2, 1992
DALLAS, TEXAS
X:XX PM

Thank you and good afternoon. (Acknowledgments)

I am pleased to be here this afternoon -- even for a brief visit. But I wanted to come to General Dynamics to personally make a statement that concerns all of you, your families and your communities.

I am announcing this afternoon that I will authorize the sale to Taiwan of 150 F-16 A/B aircraft.

I made this decision in keeping with my responsibility to maintain peace and stability in the Asia-Pacific region. By law the President must provide defense articles and services to Taiwan to promote peace and stability in the region.

This administration and its predecessors also have respected the three communiques with the People's Republic of China that commit the United States to a one-China policy and to recognition of the PRC as the sole legitimate government of China, as well as to limitations on arms sales to Taiwan.

My decision today does not change the character of that commitment. I have always believed the importance of the 1982 communique on arms sales to Taiwan is that it promotes a common political goal: peace and stability in the area through mutual restraint.

In the last few years, after decades of confrontation, great strides have been made in reducing tensions between Taipei and Beijing. During this period, the U.S. has provided Taiwan with sufficient defensive wherewithal to sustain the confidence it needs to reduce those tensions. That same sense of security has underpinned Taiwan's dramatic evolution toward democratic political reform.

I am proud to offer these aircraft in particular to Taiwan. The F-16 is an example of what only America, and Americans, can do. Only American technology -- only American skill -- could have produced this flawless piece of craftsmanship.

Throughout this century, the marvels of American defense have saved lives, kept the peace, and defended American values. The world has seen the F-16 in action. Over the skies of Desert Storm, it continued America's tradition of military excellence in more than 13,000 combat sorties.

The F-16 and the other weapons of defense the world saw perform so brilliantly in Desert Storm were conceived by American research scientists, designed by American engineers, and crafted by American working men and women. They were guided and operated by the young men and women of our volunteer armed forces -- the very generation that will lead America into the next century.

No nation can defeat us when we set our minds to a task. Now we must turn the same energies and genius to the challenge at home: to rebuild our economic base, to ensure that the high-wage, high-tech jobs of the future are made in America.

(Ferguson/Nix)
August 31, 1992
2:00
DYNAMICS

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SEPTEMBER 2, 1992
DALLAS, TEXAS
X:XX PM

Thank you and good afternoon.

(Acknowledgments)

[[I am pleased to be here this afternoon -- even for a brief visit. But I wanted to come to General Dynamics to personally make an announcement that concerns all of you, your families and your communities.

I am pleased to announce this afternoon that we have agreed to sell F-16s to the Republic of Taiwan. ^{TT} This sale reaffirms our commitment to stability in that critically important region of the world. *(usc, great)*

At the same time, it underscores an important point that you already know. ~~Even in the post-Cold War world, in which the~~ ^{Although} threat of war has receded further than at any moment in our lifetimes, America must ^{still} maintain ^{or} its defense production capabilities. America has learned the painful lesson before: Defense production lines cannot be turned off and on like a spigot ~~-- and as long as I am President, our capabilities will be second to none.]]~~

The F-16 is an example of what only America, and Americans, can do. Only American technology -- only American skill -- could have produced this flawless piece of craftsmanship.

A President cannot ask our young people to stand in harm's way if the planes are all in museums, or the ships all in mothballs. As long as I am President, America will be prepared.

Throughout this century, the marvels of American defense have saved lives, kept the peace, and defended American values. The world has seen the F-16 in action. Over the skies of Desert Storm, it continued America's tradition of military excellence in more than 13,000 combat sorties.

Like the Patriot missile -- like the Tomahawk Cruise -- the F-16 was conceived by American scientists, designed by American engineers, and crafted by American machinists and xx. And when duty demanded that it be put to the task, it was operated by the young men and women of our volunteer armed forces -- the very generation that will lead our country into the next century.

insert

These awesome achievements disprove those pessimists who talk of America in decline. Now that we have done so much to secure the peace around the world, our great challenge is to bring together these same priceless talents, that same know-how and willpower, to secure our economic future here at home.

The country that can lasso a satellite in space can and will create the finest schools in the world. The country that can drop missiles down smokestacks -- that can create a technological miracle like the F-16 -- can and will create the products the world needs in the new era of economic competition.

~~Those are the unique gifts that have made us the world's military superpower; the ingenuity of our workers, the creativity of our scientists, and the high-tech experience of our industry.~~

~~And these are the unique gifts that will guarantee that~~

③ The country that can ~~produce~~ *produce* the most diverse fighting force in the world can and will find a way to utilize the talents of all our young people.

You know the defense
Defense spending has been -- and will continue to be -- an

important part of our economy; not only here in Dallas- Ft. Worth, but in many regions of the country. Our role as the world's military superpower demands nothing less.

Defense prod lines can't be turned off like a spigot

Now that we have done so much to secure the peace around the world, the great challenge for America is to bring together those same priceless talents, that same know-how and willpower, to secure our economic future here at home.

LAMAR!

The country that can lasso a satellite in space can and will create the finest schools in the world. The country that can drop missiles down smokestacks -- that can create a technological marvel like the F-16 -- can and will create the products the world wants in the new era of economic competition.

Those are the unique gifts that have made us the world's military superpower: the ingenuity of our workers, the creativity of our scientists, and the high-tech capacities of our industries.

continue to

And those are the unique gifts that will guarantee that America ~~remains~~ *will be the* world's ~~economic~~ *leading* superpower. -- *export superpower -*

Whether it's at the testing centers of Texas Instruments, or in the labs of LTV, or right here at General Dynamics -- excellence is a goal the American worker achieves every day.

in the new century ahead

We must set the same goal for ourselves as a nation, never settling for second-best in anything we do. We have the will; we know the way. We will not only achieve our goal but surpass it, and show the world what we can do.

A

The country that dropped missiles down smokestacks -- that created a technological miracle like the F-16 -- can and will create the products the world needs in the new era of economic competition.

The country that produced the most disciplined and highly skilled fighting force in history can and will find a way to utilize the talents of all our young people.

America's role as a military superpower was not preordained. It took the ingenuity of our workers, the creativity of our scientists, and the experience of our business leaders. industry.

Now we must maintain our lead as the world's economic superpower -- and export superpower. It will require the same magic combination of ingenuity, creativity and experienced leadership.

But for those who doubt whether we're up to the task, I say: Look at this plant right here -- where excellence is the theme and leadership is all we know.

#

*We know about these qualities claim here in Texas
we all know the story about the*

From ~~David~~ ~~Doug~~ Hall
x5 746

On July 31, I announced that my Administration would undertake a review of Taiwan's request for F-16 aircraft. That review is now complete, and I am today announcing that I will authorize the sale to Taiwan of 150 F-16 A/B aircraft .

I made this decision as part of my continuing responsibility to maintain peace and stability in the Asia-Pacific region. Under our law -- the Taiwan Relations Act -- the President must provide defense articles and services to Taiwan to promote peace and stability in the region.

This Administration and its predecessors also have respected the three communiques with the People's Republic of China that commit the United States to a one China policy and to recognition of the P.R.C. as the sole legitimate government of China, as well as to limitations on arms sales to Taiwan. My decision today does not change the character of the commitment to all three of the communiques. I have always believed that the importance of the 1982 communique on arms sales to Taiwan is that it promotes a common political goal: peace and stability in the area through mutual restraint.

In the last few years, great strides have been made in reducing tensions between Taipei and Beijing; people and investment are flowing across the Taiwan Strait after decades of confrontation. Throughout this period of relaxation, the U.S. has continued the policy of providing Taiwan with sufficient defensive wherewithal to sustain confidence -- built on physical security -- to take steps toward reducing tensions with the mainland. That same sense of security has also underpinned Taiwan's dramatic evolution toward democratic political reform.

Recently, new high performance aircraft have begun to enter the inventory of the P.R.C.'s Air Force. In the interest of maintaining the necessary and legally-required balance in the region, I have been given no choice but to authorize the sale of these F-16 defensive fighters to Taiwan as a restrained response.

I am particularly proud to offer these aircraft to Taiwan because...

unchanging commitment
to bringing the next generation
of leaders - encourage reforms

high performance

Language already used w/ China

Conclusion - Vision - Hope

I am asking for your vote and your trust to serve as your President, but I believe that any American who asks for that responsibility and that great honor deserves to tell you why. I am not a professional politician. Unlike my opponent, I did not start out my adult life running for office. xx years ago, Barbara and I moved our young family west, to a little down called y, just xx miles from here. I started a new business of my own, like a lot of returning veterans. Yes, I had some help from my family and my friends. But I worked hard, darn hard, but I loved what I did. And let me let you in on a secret that you would never know from listening to the other party talk. They talk as if all people in business are greedy, looking only to bottom line. Well somepeople are like that, in any walk of life, but the main satisfaction to me, and I think to most people who start a business, was to build a team, to see it grow, to offer new opportunities and expanding jobs to young families. Perhaps, because I have had to meet a payroll in the real world and I know how important those jobs are that I dread what the other party's misguided policies will do to jobs and entrepreneurs throughout this economy.

But I also come from a family where I was taught that public service is a duty, that people like myself who have had such blessings from this great, have a responsibility to give something back to America. So I have been proud to serve as America's Ambassador to the United Nations; as Director of Central Intelligence; in the Congress and as Vice President; and now the highest honor and the greatest responsibility any citizen can receive, as your President.

I do not wish to continue to serve to hear Hail to the Chief when I enter a room or to ride on Air Force I. Let me tell you what really matters to me. Barbara and I have been blessed with x grandchildren. They range in age from x to y. Those kids, like yours, will live most of their lives in the 21st century--now just 8 years away.

If we are wise and strong and determined and united the 21st century can be the greatest in the history of America and the history of mankind. Those who are preaching the decline of America are wrong. The 21st century can be the century in which all mankind is freed. The 21st century can be the century in which America is more safe and secure than it has ever been in our history because our defenses remain strong, our adversaries have been defeated, and a new community of democratic nations is united to preserve the peace and defend the rule of law. The 21st century can be the American century of economic vitality. We can and will become the export superpower. The technology, the genius, the ingenuity that fashioned the weapons of defense you saw perform so brilliantly in Desert Storm were conceived by American research scientists, designed by American engineers, and crafted by American working men and women. They were guided and operated by the young men and women of our volunteer armed forces--the very generation that will lead America into the next century. Nobody can defeat us when set our mind to a task. Now we must unite together as we did through the long cold war and in the sands of the Persian Gulf to rebuild and revitalize our economic base, to ensure that the high wage, high skilled, high tech jobs of the future are made in America. In meeting that challenge, we cannot settle for the slipshod or the second rate in anything we do: our schools, our products, our research, our technology, or our marketing overseas. We cannot afford to waste the talent of a single citizen.

From RBZ

Conclusion - Vision - Hope

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Doug Fall

595-5746

ARC

F-16, best tech in the world

we can do it in war, we can do it in peace

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- TX Instruments

- Dallas Semiconductor Corp

- ~~LTV Corp.~~

1ST STORY of Level 1 printed in FULL format.

Copyright 1992 National Journal Inc.
National Journal's CongressDaily

August 10, 1992

SECTION: HILL BRIEFS

LENGTH: 813 words

BODY:

House Minority Whip Gingrich is resting at his Washington-area home today after he was injured Sunday in a car accident in northern Virginia. Gingrich and his wife Marianne were passengers in the back seat of a car that was hit by a pickup truck that ran a red light, according to spokesman Tony Blankley. Gingrich suffered a bruise on his leg and an external ear injury, which was surgically repaired. Gingrich and his wife were treated and released Sunday from a Reston hospital. The two other passengers -- old friends of Gingrich from Georgia -- remain hospitalized with more serious injuries.

GOP members of the Joint Economic Committee today threw some more brick bats at Democratic presidential nominee Bill Clinton's economic plan, contending it would cost 1.8 million American jobs. "Clinton's campaign slogan should be: If you're tired of your job, vote for Bill Clinton," said JEC House ranking member Dick Armey, R-Texas. The Republican views, contained in a study released today, were immediately attacked by the JEC's Democratic side. Rep. David Obey, D-Wis., said the study contained "a false patina of specificity," while charging, "What you really have here is poor George Bush being held hostage -- not only by the hard Right, but the loony Right."

House Banking Financial Institutions Subcommittee Chairman Frank Annunzio, D-Ill., is preparing to introduce legislation to bring uninsured foreign banks operating in the United States into compliance with rules governing other banks operating in this country, sources said. Uninsured foreign banks operating in the United States currently are not bound by rules on loan making and community reinvestment.

Senate Finance Chairman Bentsen today urged President Bush to lift a hold on the sale of F-16 fighter planes to Taiwan, saying the restriction is outdated and unnecessary. Bentsen noted that the United States has rejected requests from Taiwan for the planes every year during the last decade -- and that Taiwan has subsequently entered into negotiations for French planes. The F16s are manufactured in Bentsen's home state by General Dynamics Corp., which has announced layoffs of 5,800 workers because of a falloff in F-16 orders. Bush said last month during a visit to Texas that he would reconsider the ban on the sale of the planes to Taiwan. In a floor speech, Bentsen also questioned the United States' continued preferential treatment of China. He said the U.S. relationship with China was merited in the 1970s and 1980s as an "essential geo-strategic counterweight to expanding Soviet military power," but said the price had been an end to any military relationship with Taiwan.

Sen. John McCain, R-Ariz., a point man on defense for the Bush campaign, says the GOP plans to hammer Democrats on that issue this fall. But he acknowledged in an interview that the issue will not be as politically potent as in past years. "We will, of course, point out that the Democratic Congress -- the majority of them -- voted against our involvement in Desert Storm, "

Copr. 1992 National Journal's CongressDaily, August 10, 1992

McCain said. "And that every major weapon system -- practically speaking -- that Reagan and Bush supported were opposed by the Democrats, most of them." But McCain conceded: "There's no question this is more difficult than it has been in previous years. The problem is that (national security) hovers about 3 percent in the public opinion polls in importance." The differences between the two campaigns on defense are actually fairly minimal; Clinton would cut only \$58 billion more from FY94-97 Pentagon spending than Bush. "I think it's a (Clinton consultant James) Carville strategy; you just imitate the president, and that way you make it even less distinctive," McCain said.

The Capitol Spelling Bee Goes On: House Speaker Foley, in his letter to Minority Leader Michel on deficit reduction proposals last week, misspelled Republican as "Rupublican." That prompted one GOP aide to wonder aloud if that made Foley's party "Dumocrats."

2ND STORY of Level 2 printed in FULL format.

Copyright 1992 Air Force Association
Air Force Magazine

May, 1992

SECTION: 1992 USAF ALMANAC, Gallery of USAF Weapon; Pg. 140

LENGTH: 3642 words

HEADLINE: Fighters

BYLINE: By Susan H. H. Young, Edited by John W. R. Taylor

HIGHLIGHT:

As of summer 1992, all aircraft currently assigned to MAC, TAC and SAC bases will be reassigned to the new commands ACC, AMC, and AFMC. Where possible, the editors have included new designations for wings, groups, squadrons, etc., that are already in effect. For example, AFRES's 433d MAW becomes the 433d AW.

BODY:

F-15 Eagle

The F-15 is USAF's primary air-superiority fighter, in service with PACAF, TAC, USAFE and ANG. The original single-seat F-15A and two-seat F-15B were followed in June 1979 by the F-15C and F-15D, respectively, with 2,000 lb of additional internal fuel and provision for carrying conformal fuel tanks (CFTs). Basic F-15 equipment includes a Hughes Aircraft APG-63 or APG-70 lightweight X-band pulse-Doppler radar for long-range detection and tracking of small highspeed objects down to treetop level. Under ongoing contracts initiated in February 1983, the F-15 is undergoing a Multistage Improvement Program (MSIP). Improvements include: Programmable Armament Control Set (PACS), improved central computer, an expanded tactical electronic warfare system (TEWS) that provides improvements to the ALR-56C radar warning receiver and ALQ-135 countermeasures set, a major upgrade to the Hughes APG-63 radar to APG-70 standard and provision for AIM-120A AMRAAM. Installation of JTIDS Class 2 terminals begins this year. F-15C/Ds deployed to the Persian Gulf in support of Operation Desert Storm accounted for thirty-six of the thirty-nine USAF air-to-air victories.

The F-15E is USAF's two-seat, dual-role, totally integrated fighter for all-weather air-to-air and deep interdiction missions. The rear cockpit is upgraded to include four multipurpose CRT displays for aircraft systems and weapons management, with 17 separate menu displays to choose from; modifications to the front cockpit include redesigned controls, a wide-field-of-view head-up display, and three CRT multipurpose displays. The F-15E is capable of carrying up to 24,500 lb of ordnance. The digital, triple-redundant Lear Siegler flight-control system permits coupled automatic terrain following, and navigational accuracy is improved by a Honeywell ring-laser gyro INS. For low-altitude, highspeed penetration and precision attack on tactical targets at night in adverse weather, the F-15E carries a high resolution Hughes APG-70 radar and LANTIRN (Low-Altitude Navigation and Targeting Infrared for Night) pods with wide-field forward-looking infrared (FLIR).

To accommodate the new avionics, internal fuel capacity was reduced slightly, but the F-15E is fitted with CFTs, adapted to carry ordinance tangentially to reduce drag. In addition to its primary load of guided and guided bombs and

other air-to-ground weapons, the F-15E retains its air-superiority performance and weapons. Armament options include AIM-7 Sparrow, AIM-9 Sidewinder, and AIM-120A AMRAAM, as well as electro-optical (EO), infrared (IR), and standard bombs; air-to-ground missiles, dispenser munitions; and nuclear weapons. A new engine bay was developed by McDonnell Douglas to permit installation of improved turbofans. The 4th TFW at Seymour Johnson AFB, N.G., was the first operational F-15E wing. Forty-eight USAF F-15Es were deployed to the Persian Gulf, where they made a significant contribution to the realization of allied air supremacy. Operating mainly at night, they hunted Scud missile launchers and artillery sites using the LANTIRN system. They also forged a successful operational partnership with the Joint STARS aircraft. The FY 1992 budget has reversed an earlier decision to terminate F-15E production in FY 1991, following acquisition of the 200th aircraft. The production line is to be kept open, and a further nine aircraft have been authorized.

An advanced one-off experimental version of the F-15, the F-15 Short Takeoff and Landing and Maneuvering Technology Demonstrator (SMTD) has been used for research into advanced thrust-vectoring technology at the Air Force Flight Test Center at Edwards AFB, Calif. In testing, the aircraft has shown high maneuverability, in-flight thrust reversing, and reductions of thirty-five percent in takeoff distance and sixty-five percent in landing distance. It has also demonstrated the ability to land autonomously at night and in poor weather.

A further version of the F-15 has been proposed by the manufacturers to fulfill USAF's requirement for a Follow-On Wild WEasel (FWW) defense suppression aircraft to replace the current F-4G. (Date for F-15C, except where stated.) Contractor: McDonnell Aircraft Company. Division of McDonnell Douglas Corporation.

Power Plant: F-15C: two Pratt & Whitney F100-PW-100 or F100-PW-220 turbofans; each approx 23,450 lb thrust. F-15E: two Pratt & Whitney F100-PW-220 or F100-PW-229 turbofans.

Accommodation: pilot only in F-15C; two seats in F-15B/D; crew of two in F-15E. Dimensions: span 42 ft 9 3/4 in. length 63 ft 9 in. height 18 ft 5 1/2 in. Weights: empty 28,600 lb. gross 68,000 lb in F-15A/B/C/D; empty 32,500 lb, gross 81,000 lb in F-15E.

Performance: F-15C: max speed Mach 2-5, service ceiling 60,000 ft. ferry range, with external fuel tanks, more than 2,878 miles; with CFTs, 3,570 miles. F-15E: max level speed at height: Mach 2-5, max range 2.765 miles.

Armament: one internally mounted M61A1 20-mm six-barrel cannon; four AIM-9L/M Sidewinder and four AIM-7F/M Sparrow air-to-air missiles, or eight AMRAAMs, carried externally. Provision for carrying up to 24,500 lb of ordinance on weapon stations on F-15E.

F-16 Fighting Falcon

More sorties were flown by the USAF F-16 multi-mission fighters deployed to the Gulf theater than any other type during Operation Desert Storm. In 13,500 missions, the 249 F-16s were used to attack airfields, military production facilities, Scud missile sites, and a variety of other targets.

The F-16 was developed to replace F-4s in the active-duty force and to modernize the air reserve forces. Advanced technologies incorporated from the start in the single-seat F-16A and two-seat F-16B versions made them two of the most maneuverable fighters ever built. Equipment includes a multimode radar with clutter-free look-down capability, advanced radar warning receiver, a

head-up display, internal chaff/flare dispensers, and a 500-round 20-mm internal gun. The aircraft also has provisions for ECM.

The F-16 entered operational service with TAC's 388th TFW at Hill AFB, Utah, in January 1979. Production of the F-16A and B for USAF ended in 1985. However, USAF and NATO operators are cooperating in an operational capabilities upgrade. The OCU program improves the radar, fire-control computer, stores-management computer, and avionics software, giving F-16A/Bs the ability to use next-generation air-to-air and air-to-surface weapons. Reliability maintainability improvements scheduled for the early 1990s include a ring-laser gyro INS and installation of the upgraded F100-PW-220E turbofan.

A toward-looking plan for the aircraft, known as the Multinational Stated Improvement Program (MSIP), was implemented by USAF in February 1980 to ensure the aircraft's ability to accept systems under development, thereby minimizing retrofit costs. All F-16s delivered since November 1981 have had built-in structural and wiring provisions and systems architectural that expand the single-seater's multirole flexibility MSIP. It was applicable to the improved F-16C (single seat) and F-16D (two-seat) versions, of which deliveries to USAF began in July 1984. These aircraft have a Westinghouse APG-58 multimode radar, with increased range and advanced ECCM, and advanced cockpit displays including a wide-angle head-tip display. Weapons Improvements include multitarget AMRAAM compatibility. Also introduced were systems improvements that include installation of a LANTIRN new attack system. GPS, EEES, digital flight controls, automatic terrain following advanced IFF increase T-O weight and maneuvering limits, an 8,000-hour airframe, and 9g capability. Follow-on systems include ALE-47 improved defensive countermeasures. ALR-56M advanced radar warning receiver, advanced programmable signal processor employing VHSIC technology in the APG-68(V5) fire-control radar. HARM-Strike capability, a ring-laser gyro INS, and increased performance engines supplied by Pratt & Whitney (F100 PW 229) and General Electric (F110-GE-129). F-16C/Ds with interim HARM/Strike capability, are used for defense suppression/destruction missions in conjunction, with F-4G Wild Weasels based at Spangdahlem AB Germany -- a partnership that proved highly successful during the Gulf War.

A sophisticated research variant of the F-16 known as the AFTI/F-16, in use at Edwards AFB, Calif., has been modified to demonstrate new technologies for next-generation close air support battlefield air interdiction (CAS/BAI) aircraft. Systems tested and evaluated include a digital flight-control system, pilot vehicle interface, automated maneuvering attack system, digital terrain management and display system, head-steerable FLIR, integrated night vision helmet. Automatic Target Handoff System (ATHS), and Pave Penny.

Two hundred seventy of the original F-16A/Bs have been modified to F-16 ADF (Air Defense Fighter) standard under a contract awarded in October 1986 to replace F-106s and F-46 in eleven ANG continental air defense squadrons. Modifications include upgrade of AFG-66 radar with AMRAAM data link provisions for AIM-7 Sparrows improved FCCM, and improved capability against cruise missiles new equipment includes HF radio, an IFF interrogator, and ID light, a crash survivable light data recorder, and provisions for GPS Armament includes the MG1 gun and up to six missiles including combinations of Sparrows, AMRAAMS, and Sidewinders. The F-16 ADF entered service in 1989; the program is now completed.

Another 130 of the original USAF F-16A/Bs are involved in an F-16 MLU (midlife upgrade) codevelopment and coproduction program with the European Participating Governments (EPG) of the F-16 Multinational Fighter Program (MNFP). The F-16 MLU will enhance the capability of the F-16A/Bs while achieving maximum avionics commonality to the latest model F-16C/Ds

Current proposals include the modification of 300-450 F-16Cs as CAS/BAI aircraft in the mid-1990s. These F/A-16 aircraft will be modified with DTS, Navstar GPS and ATHS. Meanwhile, ANG's 138th TFS at Syracuse, N.Y., was first to convert from A-10s to F-16As in the dedicated CAS/BAI role, with centerline GPU-5/A 30-mm gun pod.

F-16s are standard equipment throughout TAC, USAFE, and PACAF and are progressively replacing older aircraft in AFRES and ANG. F-16As also equip USAF's Thunderbirds. A further 72 aircraft have been approved in FYs 1992-93. The total F-16 program involves the US Navy, as well as 17 foreign nations, more than 50 distinct aircraft configurations, and extensive foreign coproduction. (Data for F-16C.)

Contractor: General Dynamics Corporation.

Power Plant: One augmented turbofan. General Electric F110-GE-100 (27,800 lb thrust) and Pratt & Whitney F100-PW-220 (23,450 lb thrust) are alternative standard engines, increased Performance Engines (IPEs) in aircraft delivered from late 1991: Block 50, F110-GE-129 (29,000 lb thrust); Block 52: F100-PW-229 (29,100 lb thrust).

Accommodation: pilot only.

Dimensions: Spant over missiles 32 ft 9 3/4 in. length overall 49 ft 4 in height 16 ft 8 1/2 in.

Weights: empty (F100-PW-220) 18,238 lb. (F110-GE-100) 19,020 lb gross 42,300 lb.

Performance: max speed Mach 2 class, service ceiling more than 50,000 ft, ferry range more than 2,000 miles.

Armament: one M61A1 20-mm multibarrel cannon, with 500 rounds, mounted in fuselage; wingtip-mounted infrared missiles; seven other external stores stations for fuel tanks and air-to-air and air-to-surface munitions.

F-22 (formerly ATF)

The F-22 program will produce the next-generation air superiority fighter. As the follow-on to the F-15, it will ensure air superiority is maintained beyond the turn of the century. F-22 was designed to penetrate high-threat enemy airspace and achieve air superiority with a first-look, first-kill capability against multiple targets it combines a highly maneuverable airframe at both sub- and supersonic speeds with low-observable stealth technologies. The F-22 will cruise at supersonic speed without afterburners. Its integrated avionics and weapon systems will permit simultaneous engagement of multiple targets. Common signal processors are being developed using very-high integrated circuit (VHSIC) technology to the together various avionics functions. Projected armament includes the AIM-9 Sidewinder and AMRAAM air-to-air missiles, as well as an internal gun. Program emphasis from the outset has been on achieving a proper balance of reliability, supportability, affordability, survivability and performance.

In April 1991, the Secretary of the Air Force announced selection of the Lockheed, Boeing, and General Dynamics team to build the F-22, while Pratt &

Whitney was selected to build the F-22 engine, the F119. In July 1991, the F-22 successfully passed the Defense Acquisition Board Milestone 2 and commenced the engineering and manufacturing development (EMD) phase. In this phase, thirteen aircraft, eleven for flight testing and two for stress testing, and thirty-three engines are to be built. Flight testing recommenced on the VF-22 prototype, enabling the contractors to refine data and complete the F-22's design. First flight of the EMD F-22 aircraft is scheduled for the fall of 1995, with IOC slated for the early 2000s.

Contractor: Lockheed Aeronautical Systems Company, with Boeing, General Dynamics, and Pratt & Whitney as key members of the development team

Power Plant: two Pratt & Whitney F119-PW-100 turbofans, each in 35,000 lb thrust class.

Accommodation: pilot only.

Dimensions: span 44 ft 6 in. length 62 ft 10 1/2 in, height 16 lb in.

Weight: gross approx 60,000 lb.

F-111

Described the "workhorse" of the Gulf War, the F-111 flew 4,000 sorties against armored formations, bridges, C-130 sites, aircraft shelters, and weapons production facilities, achieving a mission capable rate of eighty-five percent. Four versions of this pioneer variable-geometry tactical aircraft were built to maintain USAF's around-the clock long-range, interdiction mission. Deliveries of production F-111As to the first operational wing began in October 1967, and 141 were built. This version served with distinction in southeast Asia in 1972-73 and currently equips the 366th FW. The A was superseded in production by the F-111E, with modified air intakes that improved engine performance above Mach 2.2. Ninety-four were built, and most of these serve with the 20th FW, based at RAF Upper Heyford in the UK, in support of NATO. These aircraft will, however, be returning to Cannon AFB, N.M., as RAF Upper Heyford is reduced to standby status. Replacement of their analog bombing and navigation systems with digital equipment began in 1989 and should be completed in 1993. This will enable F-111E aircraft to handle the latest munitions and advanced sensors, as well as such systems as GPS. The F-111D was designed with advanced avionics, offering improvements in navigation and air-to-air weapon delivery. Ninety-six were built, equipping the 27th FW at Cannon AFB, N.M. The F-111F, of which 106 were built, has updated turbofans and carriers in its weapons bay the Pave Tack system, which provides a day/night capability to acquire track, and designate ground targets for laser, infrared, and electro-opticality guided weapons. The F-111F is capable of employing the GBU-15, as well as TV and IR precision guided weapons. The seventy F-111F aircraft equipping the 48th FW at RAF Lakenheath will return to Cannon AFB as they are replaced by F-15Es. Under the Pacer Strike program, F-111 aircraft are undergoing an avionics modernization designed to extend the aircraft's life to the year 2010. The program involves the removal of outdated subsystems and the installation of a ringlaser gyro INS, GPS receiver, and new cockpit displays. The program also includes new computer software, integration and test of prototype models, and production of conversion kits. Flight testing by USAF aircraft is scheduled for this year, and delivery of production kits should begin in August 1993.

Production of the F-111 was completed in 1976, its EW capabilities are being updated with the ALQ-131/184 ECM pod system and future improvements will include AIM-9L/M self-defense capability. Following the signing of the INF Treaty in 1987, a program was initiated to modify SAC FB-111As to F-111G standard for

dual-role service with TAC, AGM-69A SRAM capability is deleted, and a conventional weapons-release system is added. Other modifications include Have Quick UHF radio and a new ECM system. The first F-111Gs were completed early in 1988, and transfer from SAC to TAC's 27th TFW at Cannon AFB, N.M., began in 1990 to replace F-111Ds. In July 1991, all but about six of the remaining FB-111s were retired, the last six are to be converted in F-111G standard for operational conversion training at Cannon AFB.

In addition to its nuclear and conventional bombing capability, the F-111 can carry up to twelve French Dutrandal parachute-retarded, rocket-boosted runway attack bombs to low-altitude high-speed delivery and Gator. USAF's first air-delivered mine system.

The EF-111A is an ECM conversion of the F-111A (see p. 144).

Contractor: General Dynamics Corporation

Power Plant: F-111/AE two Pratt & Whitney TF30-P. 103 turbofans; each 18,500 lb thrust with afterburning. F-111D two TF30-P-109 turbofans; each 19,600 lb thrust with afterburning. F-111F, two TF30-P-111 turbofans; each approx 25,100 lb thrust with afterburning.

Accommodation: crew of two, side by side in escape module

Dimensions: span spread 63 ft 0 in. fully swept 31 ft 11 1/2 in. length 73 ft 6 in. height 17 ft 1 1/2 in.

Weights (F-111F) max speed at 5m Mach 1.2

Performance (F-111F) max speed at S4 Mach 1.2, max speed at altitude Mach 2.5, service ceiling more than 49,000 ft, range with max internal fuel more than 2,925 miles

Armament: up to four nuclear bombs on four pivoting wing pylons, and two in internal weapon bay. Wing pylons carry total external load of up to 25,000 lb of bombs, rockets, missiles, or fuel tanks.

F-117A

Precision targeting and stealth technology combined in the F-117A to provide outstanding results in the Gulf War. USAF's total force of 56-F117As undertook 1,270 missions, flying undefected and unmolested while attacking top-priority targets.

The existence of the F-117A had been rumored since it became operational in 1983, but it was not revealed officially until November 1988. Until then, F-117As were restricted mainly to high flying in order to maintain secrecy, although three had been lost in much-publicized accidents. Public acknowledgement or their existence permitted the aircraft to operate in daylight and facilitated their integration into operational planning and exercise. The only USAF unit to deploy the single-seat, twin-engine aircraft is the 37th TFW, at Tonopah Test Range Airfield New transfer to Holloman, AFB, N.M., is scheduled for late FY 1992.

The F-117A was the first production combat type designed to exploit low-observables technology. It embodies many components that were either transferred or modified from existing aircraft in order to minimize the potential risks involved in the decision to proceed concurrently with FSB and low-level production its designers, at the famous Lockheed "Skunk Works" at Burbank, Calif. relied on the concept of faceting to give the aircraft its minimal radar signature. The skin panels of the arrowheads-shaped airframe (leading edge sweep of about 67.5 degrees) are divided into many small

perfectly flat surfaces which reflect at a variety of angles all signals from probing hostile ground or airborne radars. Much of the aircraft's external surface is made of composite radar-absorbent material. The engine air intakes and exhaust nozzles are above the wings and rear fuselage, respectively, to shield them from infrared seekers below.

F-117As can be carried on board C-5 Galaxy transports with their wings removed. Two General Electric F404 nonafterburning turbofans give the aircraft low noise signature and high subsonic performance. Quadruple redundant fly-by-wire flight controls and a state-of-the-art digital avionics suite, complemented by a specially developed automated mission planning system, are key features of the aircraft. Retractable radio antennas are located beneath the fuselage. High-precision INS is installed, with FLIR and DLIR (downward-locking infrared) housed in a retractable, steerable turret built into the underside of the aircraft, with a potential laser designator and an autotracker, to ensure precision attack. Plans to restart F-117A production, following the success of the aircraft during the Gulf conflict, were not realized in the FY 1992 appropriations bill, but \$ 42 million was made available for F-117A modifications, various improvements have been under way since 1989, including a "four-dimensional" flight management system and new cockpit instrumentation, featuring full-color multifunction displays (MFDs) and digital moving map. Planned improvements also include installation of GPS capability, low-probability-of-intercept (LPI) aircraft-to-aircraft communications, and all-weather capability.

Contractor: Lockheed Aeronautical Systems Company

Power Plant: two General Electric F404-GE-F1D2 nonperforming turbojets, 10,800 lb thrust.

Accommodations: pilot only.

Dimensions: span 43 ft 4 in. length 65 ft 11 in. height 12 ft 5 in.

Weight: max gross 52,500 lb.

Performance: high subsonic speeds; little other detail available.

Armament: full internal carriage of what is described as a wide variety of tactical weapons, including laser-guided 2,000 lb munitions, provisions (type unknown) for self-defense.

GRAPHIC: Picture 1, F-15C (G. Aceto); Picture 2, F-15E (G. Aceto); Picture 3, F-16C (G. Aceto); Picture 4, YF-22; Picture 5, F-111D (R. Jolly); Picture 6, F-117A

5TH STORY of Level 1 printed in FULL format.

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January 6, 1992

SECTION: INDUSTRIES; Aerospace & Defense; Pg. 96

LENGTH: 1137 words

BYLINE: By Howard Banks

HIGHLIGHT:

Preparing for even more draconian cuts in defense spending, suppliers are cutting jobs and costs.

BODY:

Defense contractors are finally feeling the effects of reduced spending. Employment in this sector dropped 8% in 1991, to 1.2 million workers.

Tougher cuts are ahead. The Pentagon is working on "Base Force II," a program to reduce its budget by another \$ 30 billion by 1995. This follows an almost 20%, or nearly \$ 50 billion, cut already in progress. Spending on procurement and research and development in 1995 is expected to be \$ 91 billion, down 45% in real (1992 dollars) terms from its 1985 peak.

Production of General Dynamics' F-16 fighter has been cut to 48 aircraft for 1992. That's down from the 72 jets that were originally planned. And, except for replacing the handful of planes lost in Desert Storm, McDonnell Douglas has virtually stopped making F-15s. Manufacturers of military jet engines will also feel the pinch: General Electric expects to build as few as 240 engines in 1995, down from 610 engines in 1985. United Technologies' Pratt & Whitney division faces the same kind of cutback.

In 1991 commercial jet deliveries hit a record \$ 36.4 billion, a 17% increase over 1990. But this was not enough to offset the decline in military business: Return on equity of aerospace firms sagged to 9.4%, down from 13% in 1990. Profits, however, are expected to be up 3% in 1991, to \$ 4.6 billion, according to the Aerospace Industries Association, thanks to cost-cutting and layoffs.

New orders for airliners are getting harder to find. In the fall Boeing will cut production of its 737 from 21 a month to 17. Firm backlogs are also declining. Boeing's \$ 98 billion announced order book is down 5% from 1990; McDonnell Douglas' is down 12%, to \$ 22.4 billion. When Frank Shrontz, Boeing's chairman, recently said that Boeing would probably lose orders if the economy didn't pick up soon, Boeing's stock dropped 3 1/8 points in one day, even though the Seattle-based company has yet to have any cancelations.

There are still a few juicy defense projects. Spending on space is expected to reach \$ 31.8 billion in 1992, up from \$ 28.9 billion in 1990. In 1992 the Strategic Defense Initiative will soak up about \$ 4 billion, including increased spending on surveillance satellites and a limited ground-based antiballistic-missile system. This will benefit companies such as Lockheed, Martin Marietta, Hughes Aircraft and Rockwell International.

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Note: This table may be divided, and additional information on a particular entry may appear on more than one screen
Aerospace
& defense

Company	Profitability			Debt/ capital %	Growth	
	Return on equity		Return on capital		Sales	
	5-year average %	latest 12 mos %	latest 12 mos %		5-year average %	latest 12 mos %
Teledyne	45.8	def	def	50.6	1.8	-5.2
Martin Marietta	27.6	20.9	15.6	22.4	6.9	-3.7
Raytheon	24.2	20.2	20.1	1.3	7.3	2.7
GenCorp	22.9	14.4	11.7	63.3	-10.6	6.6
General Electric	19.9	20.4	11.7	47.7	11.3	4.6
Precision Castparts	19.8	13.0	11.6	8.0	19.5	14.8
Teleflex	18.9	15.3	11.5	31.9	20.1	8.3
Rockwell Intl	18.1	14.7	11.8	13.1	NM	-3.7
Loral	17.2	14.6	9.9	36.2	23.8	99.1
E-Systems	16.3	16.3	14.3	10.0	14.0	8.6
Boeing	15.7	21.2	19.9	3.8	13.0	12.4
Lockheed	15.4	10.9	8.7	30.4	NM	0.0
Thiokol	15.2	18.2	10.8	32.0	7.2	3.8
Allied-Signal	14.9	def	def	37.7	4.7	-2.3
Fairchild	14.8	def	4.5	66.9	26.9	-22.8
United Technologies	13.8	6.0	5.9	25.9	7.4	0.2
Sundstrand	12.5	15.0	12.5	35.9	4.4	3.5
Sequa	12.2	def	1.5	52.3	33.0	-13.0
Textron	12.0	10.6	7.7	69.9	7.0	2.2
Litton Industries	11.5	5.5	5.6	40.3	3.5	3.5
Kaman	11.4	9.4	7.6	35.2	8.9	-3.3
Harsco	10.8	15.8	13.3	28.5	6.8	17.9
Grumman	8.4	10.0	8.4	42.6	4.3	6.2
McDonnell Douglas	8.0	6.0	5.7	53.0	6.7	8.4
Hexcel	7.1	2.5	3.5	45.5	10.9	0.1
UNC	7.0	4.9	5.4	57.0	NM	-7.5
Northrop	6.9	16.6	11.7	32.8	NM	6.7
Rohr Industries	6.1	7.4	6.4	52.3	17.2	28.4
Oshkosh Truck	6.0	0.7	0.9	7.4	2.2	-7.4
SPS Technologies	3.4	def	def	28.3	8.3	-7.4
GM Hughes Electronics	2.9	1.2	5.5	3.2	3.8	-2.2
General Dynamics	2.8	def	def	31.0	4.3	-11.7
Wyman-Gordon	1.6	def	0.6	26.3	NM	-1.2
Avondale Industries	def	def	def	18.9	11.3	7.9
Talley Industries	def	def	def	71.1	3.3	-17.3
Alliant Techsystems	NA	31.1	18.9	43.2	* 3.4	3.4
ESCO Electronics	NA	def	def	3.1	-1.8	-10.6
Industry medians	12.2	9.4	7.6	32.8	6.8	2.2
All-industry medians	13.2	9.9	7.6	32.4	11.3	3.7

Growth Earnings per share	Sales	Net income	Profit margin				
				5-year	latest	latest	latest
				5-year	latest	latest	latest

1992 Forbes, January 6, 1992

Company	average %	12 mos %	12 mos \$ mil	12 mos \$ mil	12 mos %
Teledyne	NM	P-D	3,269	-53	def
Martin Marietta	11.3	-2.1	5,963	326	5.5
Raytheon	14.1	4.5	9,301	578	6.2
GenCorp	15.3	3.4	1,919	29	1.5
General Electric	15.6	6.8	59,938	4,411	7.4
Precision Castparts	18.8	16.4	568	35	6.2
Teleflex	16.4	2.5	459	29	6.4
Rockwell Intl	4.1	0.4	11,927	601	5.0
Loral	10.1	18.6	2,829	103	3.7
E-Systems	12.6	23.0	1,921	105	5.5
Boeing	14.5	29.9	28,576	1,482	5.2
Lockheed	NM	142.4	10,019	304	3.0
Thiokol	NM	22.7	1,252	55	4.4
Allied-Signal	NM	P-D	11,970	-281	def
Fairchild	NM	P-D	513	-9	def
United Technologies	21.9	-54.2	21,059	372	1.8
Sundstrand	18.0	-13.2	1,655	94	5.7
Sequa	-29.6	P-D	1,914	-15	def
Textron	0.8	7.7	7,969	294	3.7
Litton Industries	NM	-56.8	5,351	65	1.2
Kaman	-7.8	-6.5	791	18	2.3
Harsco	NM	41.4	1,862	69	3.7
Grumman	NM	10.0	3,967	92	2.3
McDonnell Douglas	-15.4	-42.3	17,803	211	1.2
Hexcel	-18.7	500.0+	387	3	0.9
UNC	NM	D-P	356	7	1.9
Northrop	NM	28.0	5,648	172	3.1
Rohr Industries	-5.0	Z-P	1,385	31	2.2
Oshkosh Truck	NM	D-P	420	1	0.2
SPS Technologies	NM	P-D	396	-5	def
GM Hughes Electronics	8.8	-38.0	11,232	445	4.0
General Dynamics	NM	P-D	9,016	-191	def
Wyman-Gordon	NM	D-D	798	-31	def
Avondale Industries	NM	D-D	324	-61	def
Talley Industries	NA	NA	1,265	42	3.3
Alliant Techsystems	NA	NA	1,265	42	3.3
ESCO Electronics	NA	D-D	481	-67	def
Industry medians	-18.7	1.5	1,919	42	2.3
All-industry medians	4.5	-5.9	1,436	40	2.9

* Four-year average.

D-D: Deficit to deficit.

D-P: Deficit to profit.

P-D: Profit to deficit.

def: Deficit.

NA: Not available.

NM: Not meaningful.

Sources: Forbes; Value Line Data Base Service via Lotus CD Investment.

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SECTION: Pg. 55

LENGTH: 2441 words

HEADLINE: Rumbles From the Industrial Base

BYLINE: By Larry Grossman; Larry Grossman is a free-lance writer in Washington, D.C., and a regular contributor to AIR FORCE Magazine. His most recent article in these pages was "Veterans Flood the Job Market" in the April 1992 issue.

HIGHLIGHT:
Defense firms question whether the "fifth service" can gear up for the next crisis.

BODY:

LOCKHEED'S chief executive, Daniel M. Tellep, seemed to capture the essence of post-cold war unease felt by the several hundred US Air Force acquisition officers and defense industry executives attending the second annual USAF-AFA acquisition conference, held recently near Washington, D. C.

"If someone asked me to describe the mood swings of the defense industry over the last decade," remarked Mr. Tellep. "I'd say 'euphoric, beleaguered, triumphant, apprehensive.'"

The US defense industry, explained the CEO of Lockheed, was frankly euphoric about the substantial increases in defense spending during the height of the Reagan military buildup of the early 1980s. When the press began to churn out hundreds of stories alleging massive cost overruns, spare parts "horror stories," and rampant waste, fraud, and abuse, the industry felt beleaguered. More recently, as the Persian Gulf War unfolded, the industry's mood turned triumphant as the US celebrated the armed forces' technological prowess.

Yet within months of the end of that war, noted Mr. Tellep, "this mood disappeared into the shadows of what one poignant headline called 'The War's Faded Triumph.'" As a result, the stark reality of change sweeping the industry has made its employees, leaders, and customers "distinctly apprehensive."

"Despite what many think," he went on, "it is not just downsizing, contraction, rightsizing -- whatever you want to call it -- that makes us apprehensive. We have been doing that for several years. Nor are we in industry concerned only about the fate of our programs or the size of our business. What we are deeply concerned about is a sense of lost equilibrium, the lack of shared national goals and the threat to our nation's technological vitality."

Mr. Tellep spoke for many at the late-February event, sponsored by AFA's Central East Region. The theme was "Partnership, Competitiveness, and Rightsizing." Participants seemed convinced that, in the wake of the breakup of the Soviet Union, the nation's defense industrial complex, which has been churning out high-tech weapons and other advanced systems for nearly four

decades, entered a period of radical change on a scale unprecedented in its history. To many, the uncertainty seems comparable in scope, if not magnitude, to that facing the new nations of eastern Europe and the former Soviet Union.

Life Support

Conference participants recognized that some in the Defense Department and Congress are trying to pull together a life-support system for the US defense industry to keep the industrial complex sufficiently strong to serve as a base for regeneration of US forces.

These experts fret that, unless the Pentagon comes up with the right "rightsizing" plan and moves to forge a partnership with defense industry, the so-called "fifth service" will not be able to gear up for the next crisis. The point was made by Defense Secretary Dick Cheney, who in a February report to Congress claimed that the defense industrial base "will not be able to respond in a timely fashion" if critical part disappear.

One prime topic of conversation was the Pentagon's new approach to weapon acquisition. In an effort to prevent massive erosion of the base, the Pentagon's top weapons buyers announced in January that the government would pursue a new policy that emphasizes research and development and production of prototypes rather than production. Future funding for research and development will remain at steady if not increasing levels while overall defense spending declines.

The Defense Department maintains that this will ensure continuation of the technological advantage that the US armed forces enjoyed during Operation Desert Storm. Meanwhile, the Pentagon will push increased arms sales to friendly governments to stretch out current production and keep weapons suppliers in the defense business.

In addition, DoD wants to shore up industry balance sheets by phasing out the fixed-price contracting that resulted in big losses for many companies. It is urging defense contractors to adopt flexible and agile manufacturing systems so they can rapidly switch from making weapons to making commercial products and back again -- a tall order in the best of times.

"Implementing this plan will not be easy, but it's the best way to go," Gen. Michael P. C. Carns, the Air Force Vice Chief of Staff, told conference attendees. "The alternative -- conducting business as usual -- will only postpone the hard choices."

"The new acquisition approach will require close partnership to be successful," Lt. Gen. John E. Jaquish, principal deputy to the assistant secretary of the Air Force for Acquisition, told the conference.

Opinion was divided on whether the Pentagon's plan is best, but few at the conference disagreed that there can be no going back to business as usual. The sentiment also was widespread on Capitol Hill, said Rep. Les Aspin, the Wisconsin Democrat and defense expert who chairs the House Armed Services Committee, "If we continue with business as usual, we soon won't be doing much business at all. . . . We've got to plan now so that the defense industrial base we have left will provide us the defense we need for the future."

"Out of Business"

It is, rather, the specifics of the Pentagon's new roadmap for acquisition that draws criticism from Representative Aspin and acquisition experts. They said that the Cheney plan will not be enough. "If we follow [Cheney's] plan," argued Representative Aspin, "we will be out of business in several defense industries."

Industry executives at the conference strongly agreed with the House defense leader. "Of we are going to be successful over the long haul, we cannot take the position of putting prototypes on the shelf," said Gordon L. Williams, president of Dallas-based LTV Aerospace & Defense Co.'s aircraft division. Industry must be able to build new designs "on hard tooling [and] must do it in an environment that is closely knit to production," said Mr. Williams, whose division builds major components for USAF's B-2 Stealth bomber.

While recognizing the fiscal and strategic realities that are forcing the change, industry -- the Pentagon's partner in national defense -- is anxious about the new acquisition rules. The changes sent shock waves through the defense industry, at least partly because senior Pentagon weapons buyers, from Deputy Secretary of Defense Donald Atwood on down, simply failed to consult industry counterparts, according to several executives.

At the conference, as in other venues, Pentagon officials were at pains to point out that, while tough times await the industry, there will still be significant purchases of military hardware. Because of falling budgets and rising weapons costs, a Defense Department fact sheet said, the military "must ensure that it produces only those weapon systems it absolutely needs," but this does not mean that the military is going to stop buying weapons for billions of dollars annually.

"We will still be producing things," said Secretary Cheney. Mr. Atwood added that "the Pentagon is going to spend \$ 50 billion a year on acquisition," so the defense industry should not panic.

There was still unease among the conference participants about the course of the defense business. They noted that the Air Force will not be buying any more F-15 fighters from McDonnell Douglas after the final order placed in Fiscal 1991 and that only twenty-four General Dynamics -- built USAF F-16 fighters have been requested for 1993, down from forty-eight this year and 108 in 1991. Army purchases of Gulf War-proven AH-64 Apache attack helicopters, built by McDonnell Douglas, and M1 tanks, built by General Dynamics, are scheduled to end this year. Under DoD plans, when General Dynamics' Electric Boat division completes the first Seawolf-class attack submarine for the Navy, the program will be terminated.

The Army's number one acquisition priority, the RAH-66 Comanche helicopter, was heading for production in late 1996, when the first of 1,292 aircraft for \$ 34 billion was to roll off the line. Now, under the Pentagon's new acquisition plan, United Technologies' Sikorsky Aircraft and teammate Boeing Helicopters will build just three prototype Comanches.

The Pressure Is Off

The acquisition process can be changed because the Pentagon no longer has to worry about "the Soviets right behind us, or just ahead of us," Secretary Atwood said. The pressure to get new equipment into the field has been alleviated, so time can be spent deciding exactly what is needed and seeking the best approach.

Industry executives at the conference nevertheless expressed dismay that the Pentagon would develop its industrial base policy in a vacuum.

"There is plenty of expertise in corporate boardrooms across the country," said one executive of a large US aerospace manufacturing firm. "You'd never know it, however, because no one from [the Office of the Secretary of Defense] ever asked anyone in the defense business for their advice." He added that the defense industry has been thrown into confusion because many of the Pentagon's new acquisition policies have not been put into final form.

In addition, the military has not decided the fate of several large programs in early stages of development. "We have no idea of what the future of those weapon systems is," the aerospace executive said.

The new strategy is "seriously flawed," said Don Fuqua, president of the Aerospace Industries Association. As the Defense Department works out the kinks, he added, industry hopes to help out, "I think our industry can help," said Mr. Fuqua. "We know what it takes to build this stuff."

Lockheed's Mr. Tellep took a singularly different approach from that of most major executives. He says that the Pentagon's new acquisition strategy -- "if done right" -- will provide a good way to continue the development of high technology in the new budget environment.

Mr. Tellep told the conference that early industry perception of the new acquisition strategy was unfavorable because it at first appeared to de-emphasize development and production of systems after the prototype stage. "Industry's concern was that prototypes alone fail to maintain critical manufacturing skills and vital lower-tier supplier bases," he said, adding that he was relieved when Secretary Cheney clarified the plan during a news conference in late January.

In that appearance, the Secretary said, "We well understand that the process of developing a new weapon system not only involves developing the technology and engineering it into a weapon; it also involves developing the production process and building enough of a particular item to get operational experience with it, to be able to field it with the force in sufficient numbers so that we can develop the doctrine that goes with it."

Mr. Tellep lauded the Secretary's statement, claiming, "I can't imagine anyone in industry taking issue with it."

No Last Word

Even with industry in partnership, the Pentagon may not have the last word in shaping a new acquisition strategy. Several powerful Capitol Hill lawmakers have offered their own proposals. In an election year, with thousands of defense jobs at stake, many changes may yet be made in the new system.

Representative Aspin, for example, has proposed that the Defense Department sustain low-volume procurement for critical systems -- even in excess of military needs. He singled out F-16s and naval nuclear reactors as good candidates.

Selective upgrading of existing systems, according to the Aspin proposal, would allow improvement of weaponry without the expense of new systems while helping maintain needed elements of the defense industrial base. Representative Aspin mentioned the conversion of M1A1 tanks into M1A2s, a move that would sustain armor, cannon, and propulsion elements of tank production.

The subject of much discussion at the acquisition conference, however, was Representative Aspin's plan for selective low-rate procurement. This would permit the purchase of current-generation systems and components as needed to keep vital, defense-unique suppliers alive to produce future systems.

In this context, Aspin would buy F-16s as a hedge against risks in development of the new F-22 Advanced Tactical Fighter, set to achieve initial operational capability in 2002. Selective low-rate procurement of F-16s would keep General Dynamics' Fort Worth production lines open until the Air Force can begin buying its new Multirole Fighter at the turn of the century.

Though Representative Aspin did not get the endorsement of industry executives attending the conference, the idea of continuing production -- even at low rates -- was embraced by several of those in attendance.

"If we allow our production facilities to atrophy, you're going to have to accept a strategy of a come-as-you-are force," said Oliver C. Boileau, president and general manager of the Northrop B-2 division. This, he said, is a "dangerous prospect," given the ease with which coalition forces overwhelmed the Iraqi air forces and Republican Guard.

"We won so easily that the American people believe we can do the same thing anywhere, anytime," said Mr. Boileau. "The Air Force and the rest of DoD must provide, from a national military strategy, the minimum required capabilities in numbers of equipment and kinds of equipment that we must have in the defense industrial base" -- technologies not just for prototypes but also for the fighting force.

Representative Aspin's plan to keep weapons in low rates of production will not work, the Pentagon says, Sean O'Keefe, the Pentagon's comptroller and a close advisor to Secretary Cheney, contended that "it would be a mistake, and it would be very difficult to justify to the taxpayer the idea of going back to what we did in the late 1970s, which is build a very small number of weapon systems at very high unit costs and miserly rates. "At the time, M. O'Keefe said, arsenal needs demanded this approach, but this is no longer true.

"To the extent that you make the decision to keep anything going that exceeds inventory demand for what you perceive to be the overall base force requirements," Mr. O'Keefe said, "in the end you make an industrial planning decision [that] we have demonstrated as a department that we are totally [incapable] of doing equitably. We've never done that right, and now is not the time to start, because invariably we're just not qualified to make decisions on where to draw the line."