

OPEN SOURCE COORDINATOR'S Senior Manager's Council

A Status Report On STIC Open Source Activities 6 August 1992

Thomas R. Pedtke, Chairman
STIC Open Source Subcommittee

BACKGROUND

- Technical Director, FASTC Data Exploitation
 - Collection Requirements & Support
 - IMINT
 - SIGINT
 - MASINT
 - FME
 - Literature (OSINT & HUMINT)
 - STIISP - Executive Agent for DIA
 - Data Integration
- Chairman, STIC Open Source Subcommittee
 - NORS Working Group

OVERVIEW

STIC Open Source Subcommittee

- History
- Initial Subcommittee Study
- Current & Future Activities
 - Current Focus
 - NORS Working Group
 - Future Studies
- NORS Working Group Results
- Summary

HISTORY

STIC Open Source Subcommittee

- STIC Advocacy For Open Source
 - OSINT Committee
 - OSINT Working Group
 - OSINT Subcommittee
- STIC Open Source Subcommittee
 - Immediate Advocacy
 - Analysts' Tools/CIRC Baseline/Commerical DB
- October 1991
 - Analysts' Forum
 - Open Attendance
 - Supplier Consortium

INITIAL SUBCOMMITTEE STUDY

And Related Open Source Community Environment

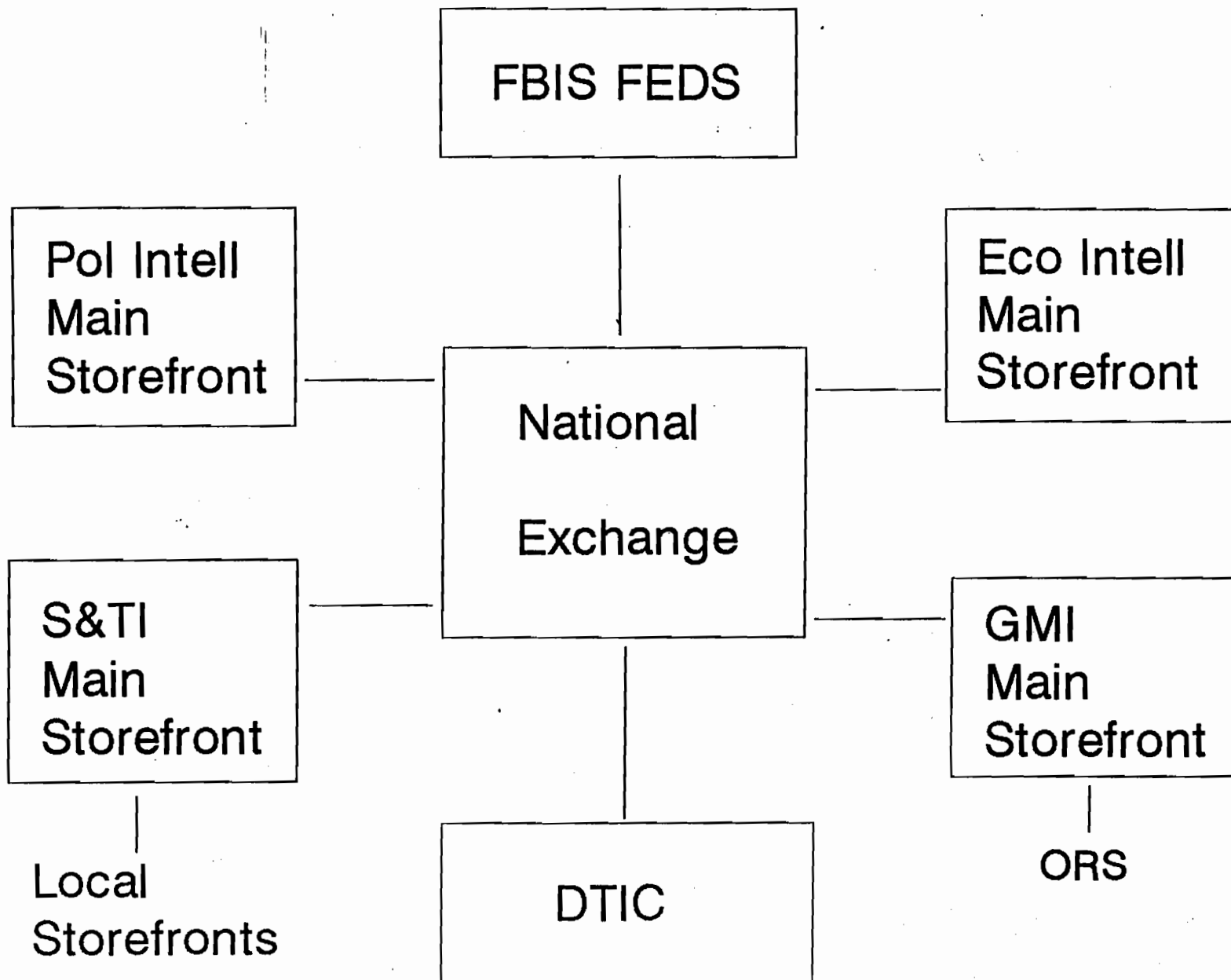
- Initial Study - An Advocacy For Open Source
 - Open Source Intelligence System (OSIS)
 - Analysts' Data Stream
 - National Open Source Requirements System (NORS)
 - Substantive Information & Tools

- Related Environment
 - FBIS Survey
 - Open Source Joint Task Force & Working Group
 - DCI Response
 - Open Source Coordinator
 - Recommendations - Strategic & Long-Term
 - Referent Capability

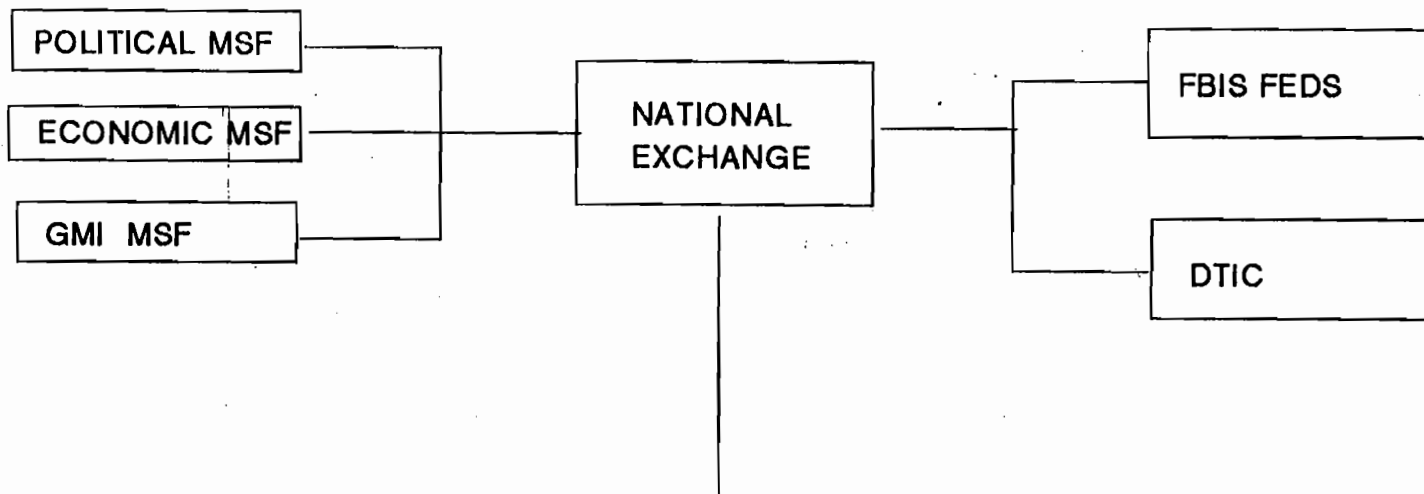
CURRENT & FUTURE ACTIVITIES

- Current Subcommittee Focus
- NORS Working Group
 - Requirements' Mechanism
 - Substantive Information
 - Tools
 - Storefront Concept
- Future Subcommittee Studies
 - Coping With Information Overload
 - Mission Needs Study - A New Paradigm?
 - Specifications - Tools

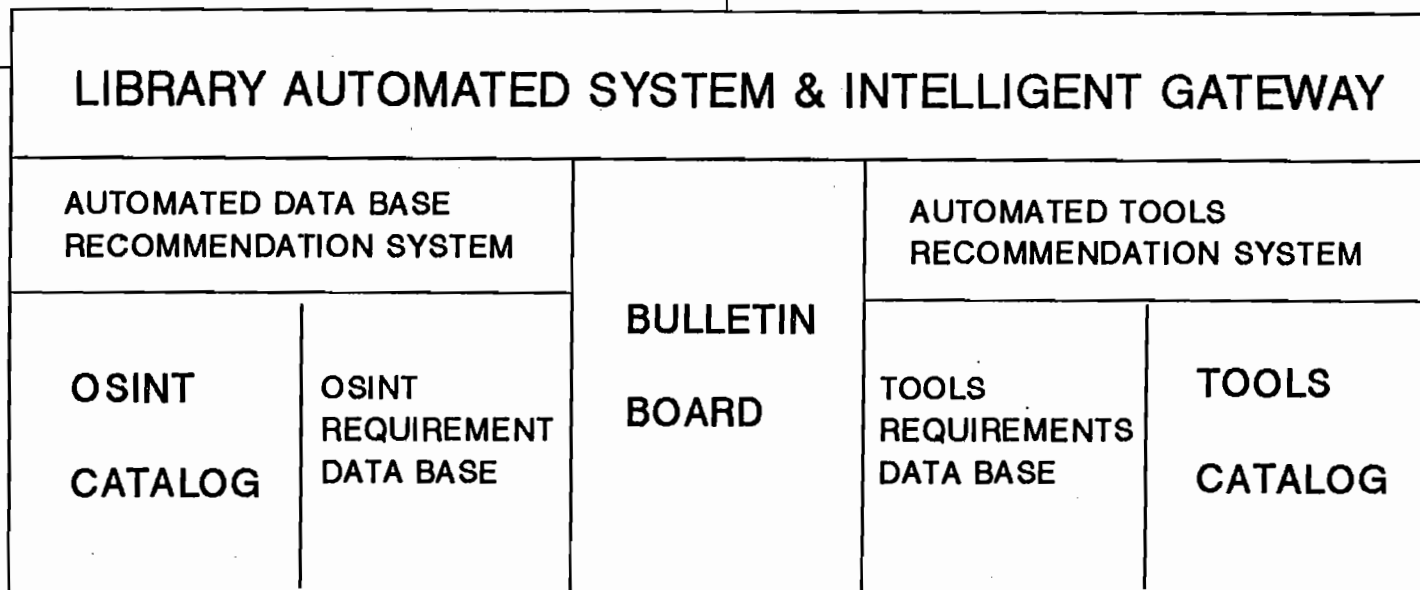
NATIONAL OPEN SOURCE ARCHITECTURE



MAIN STOREFRONT



COMMERCIAL
DATA
BASES

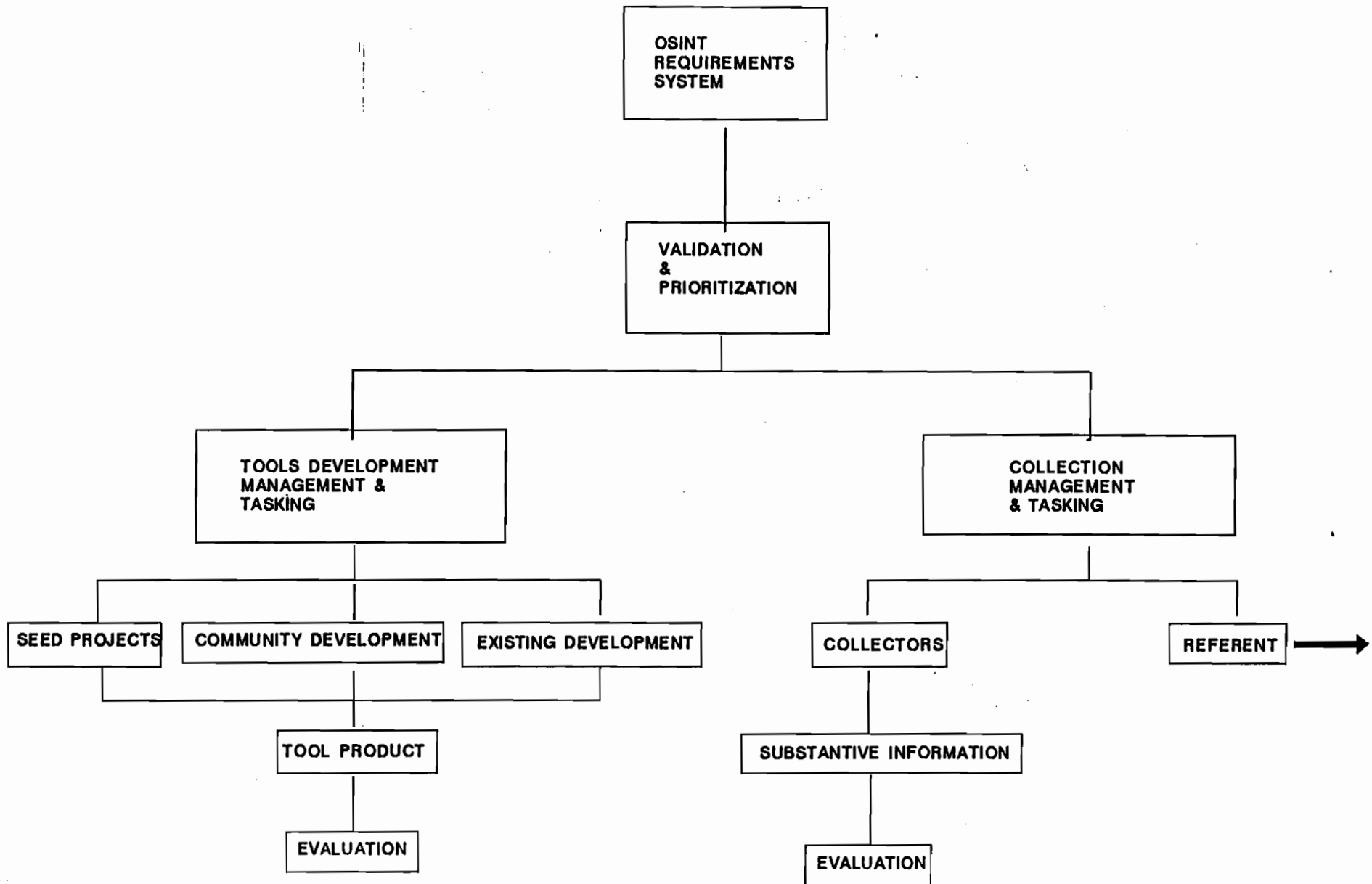


CENTER
DATA
BASES

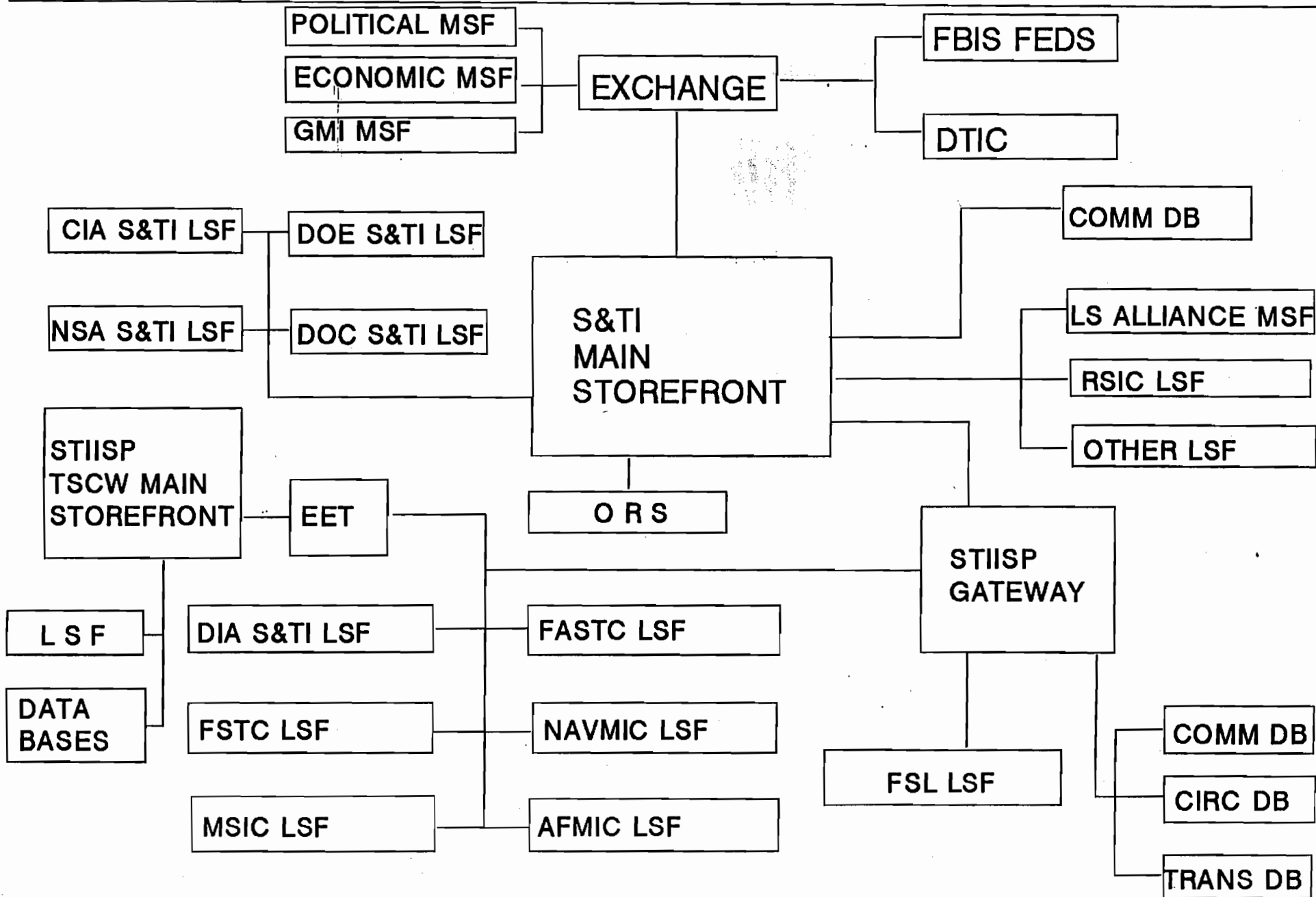


OSINT REQUIREMENTS SYSTEM

OSINT REQUIREMENTS SYSTEM



S&TI MAIN STOREFRONT



SUMMARY

- Charter Is S&TI
 - STIC
 - STIISP
 - But...
- NORS Working Group
 - Storefront - OSIS Concept
 - Requirements
 - Tools
- Continue to Focus on Analysts' Tools & Communications

OPEN SOURCE INTELLIGENCE

Status of FASTC & STIISP Programs, Initiatives & Research

Thomas R. Pedtke
Technical Director

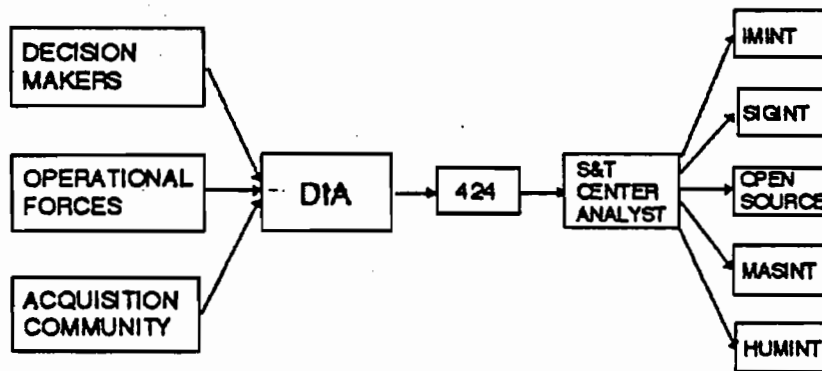
OVERVIEW

- Customer Need
- Vision for Open Source
- STIISP Program
- Strategic Plan
- Review of Supporting R&D and Experiments
- Open Source Environment
 - Committees & Groups
 - Results of Initiative Briefings
- Issues & Recommendations

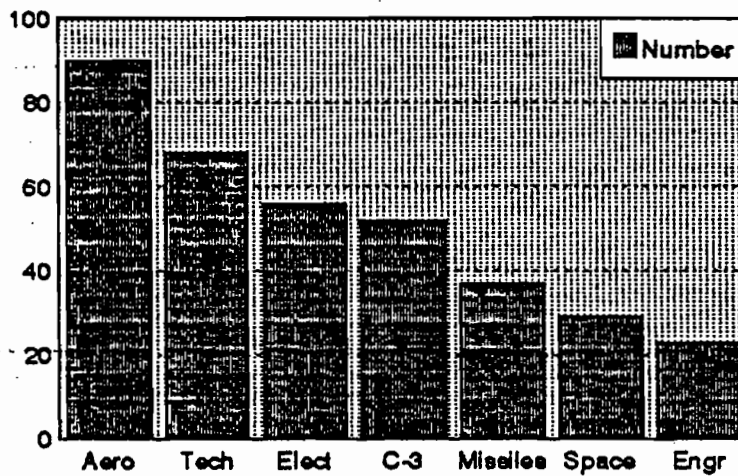
CUSTOMER NEEDS

- Customers
 - Operational Forces
 - Decision-Makers
 - Acquisition Community
- Needs
 - Responsive & Timely
 - Tailored
 - Accurate
- Targets
 - CIS
 - ROW

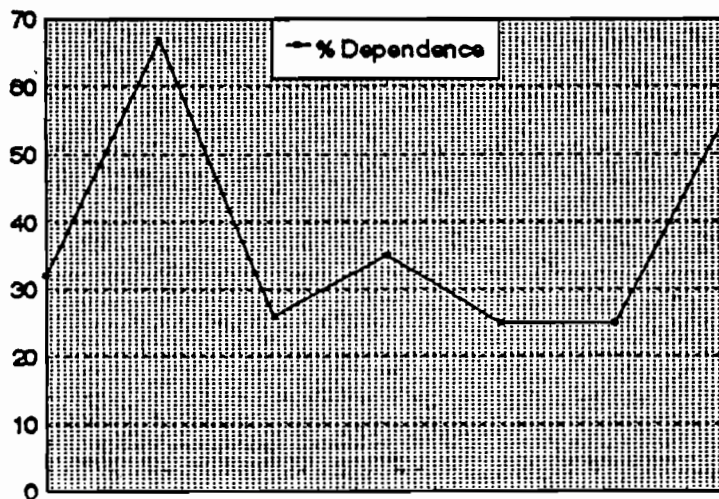
INTELLIGENCE REQUIREMENTS PROCESS



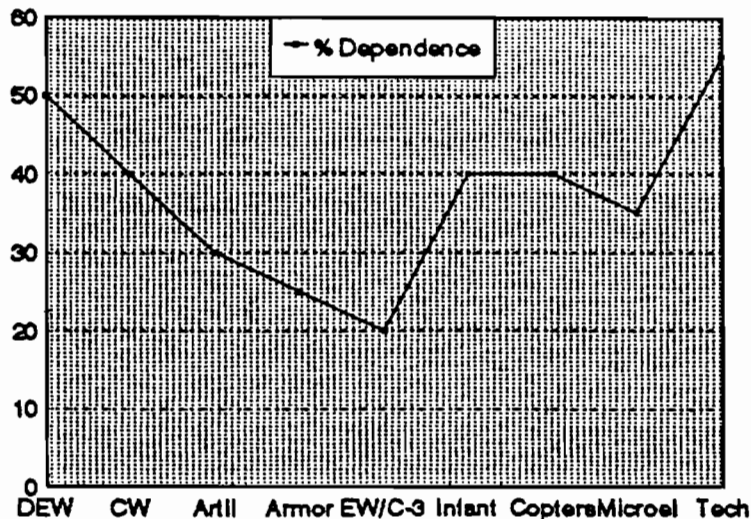
FASTC 424 Tasking Requirements by Functional Area



FASTC OPEN SOURCE DEPENDENCE



FSTC OPEN SOURCE DEPENDENCE



REQUIREMENTS SUMMARY

- These tasks were against the former Soviet Union and the Warsaw Pact
- The CIRC data base & Foreign Science Library did provide adequate open source information to support these tasks
- These tasks have been modified to now cover the republics of the Commonwealth of Independent States, the Eastern European countries of the former Warsaw Pact and all other countries worldwide
- The CIRC data base & Foreign Science Library do not provide the necessary open source information to support this modified tasking

VISION FOR OPEN SOURCE

- Analysts' Needs
 - Timely Data Stream of Open Source Information Routinely Provided At The Work Station
 - Tools To Search & Manipulate 10 To 100 Times The Information Currently Available
- Solution Concept
 - Open Source Information System (OSIS)
 - Based on a Distributed Architecture
 - Building on Existing Infrastructure
 - A National Open Source Requirements System (NORS)
 - Substantive Requirements
 - Functionality Requirements
 - Referent Capability

STIISP COMMUNITY

S&T Intelligence Information Services Program

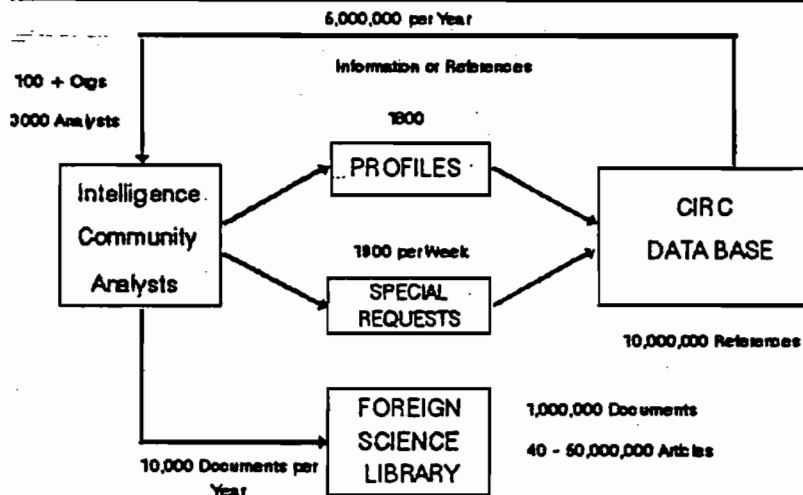
- STIISP Program Manager – DIA
- STIISP Executive Agent – FASTC
- STIISP User Community
 - FASTC
 - MSIC
 - FSTC
 - NAVMIC
 - AFMIC
 - (Over 100 Other Users)

STIISP PROGRAM RESPONSIBILITIES

Function	FASTC	AFMIC	FSTC	MSIC	NAVMIC
Procurement	X				
Input to CIRC					
- Open	X				
- Classified	X	X	X	X	X
CIRC O&M	X				
Info Svcs	X	X	X	X	X
Doc Svcs	X	X	X	X	X
Trans Svcs	X	X	X	X	X

CIRC/FSL FLOWCHART

Central Information & Reference Control Data Base



Based on 1991 Data With 200,000 New Inputs per Year

STRATEGIC PLAN

S&TI Open Source Program

- Continuous Improvement Of Current Capability
- Incremental Enhancements And Automation
- Long-Term Architecture

CONTINUOUS IMPROVEMENT

- Coverage
 - Reduced FSU/EEC Periodicals
 - Increased ROW Periodicals
 - FBIS JPRS/CTS Data Bases
 - Pinnacle Data Base
- Commercial Data Bases
 - Access
 - CD ROM
- Prototyping
 - Library Automation
 - Translation Automation
 - Scanning & OCRs
- T-1 Connectivity

INCREMENTAL ENHANCEMENTS

DIA GDIP Initiative Under NSR-29

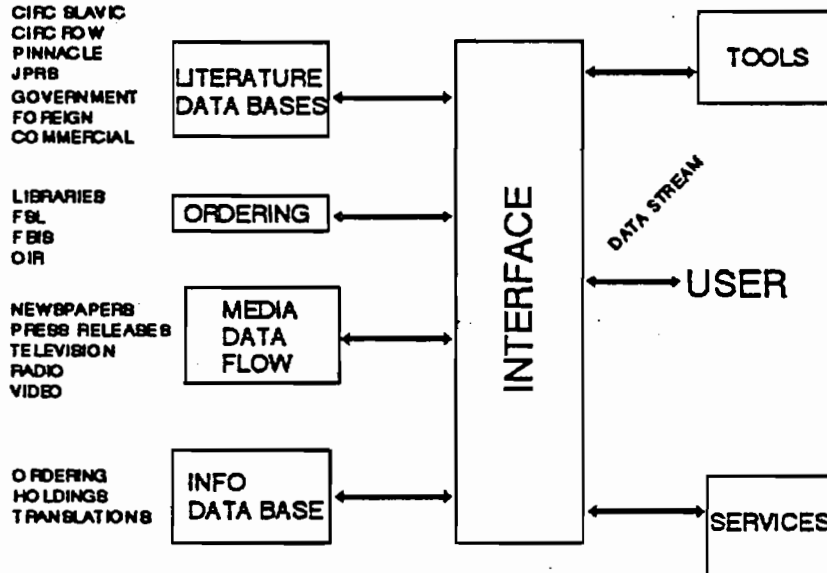
- STILAS
- DOCUTRAN
- Commercial Data Bases
- Expanded ROW Coverage
- Research & Development

LONG-TERM ARCHITECTURE

Air Force OSINT Initiatives

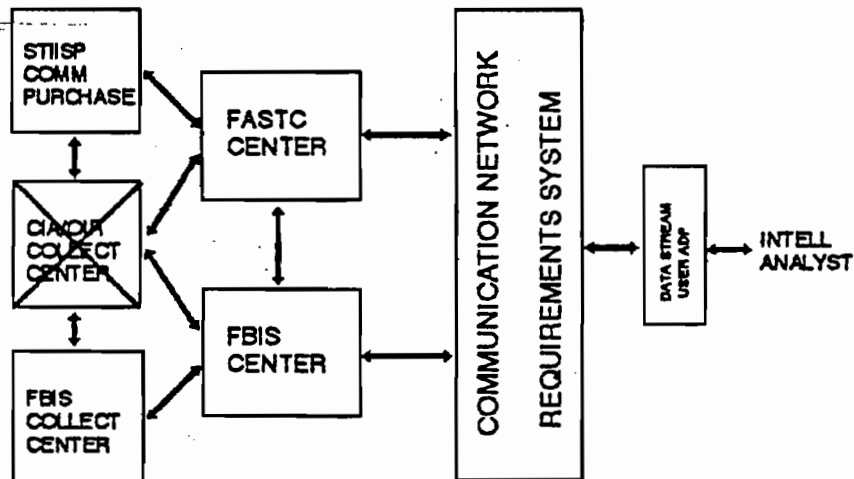
- Open Source Information System
 - Compatible With DIA NSR-29
 - More Extensive Than DIA NSR-29
- National Open Source Requirements System
- Levels 1 & 2 In FASTC Proposals

DISTRIBUTED OSINT CENTER CONCEPT



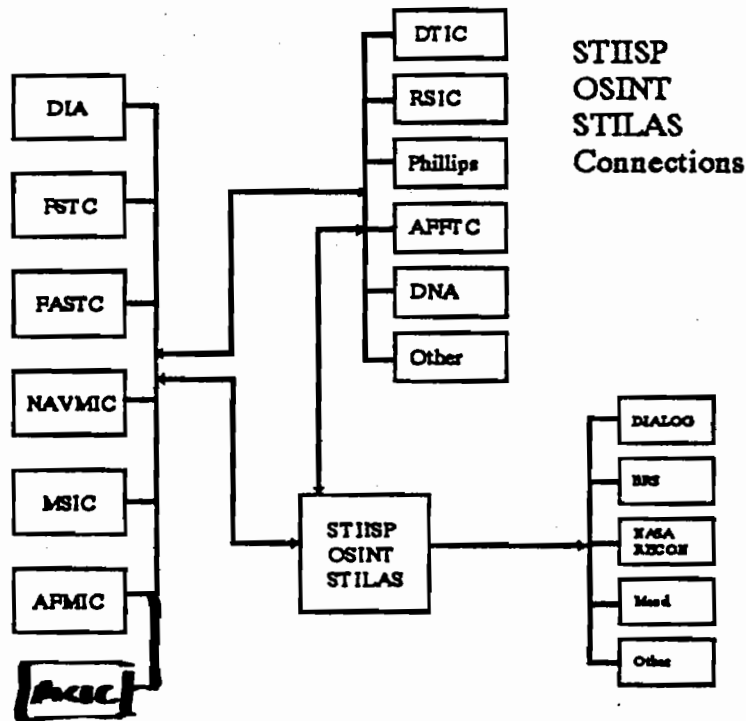
DISTRIBUTED OSINT CENTER CONCEPT

Exemplative Centers

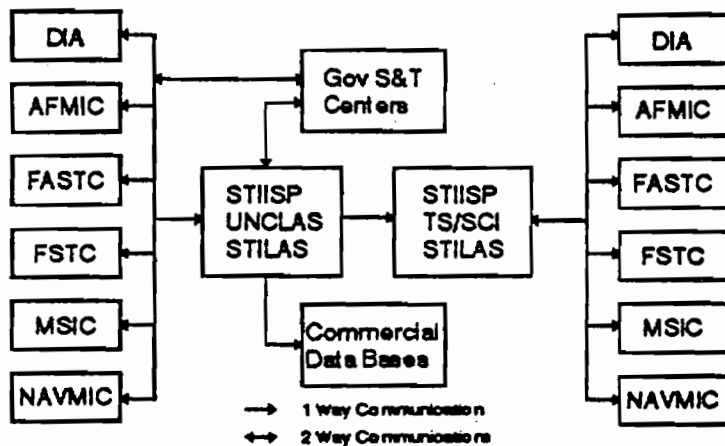


SUPPORTING RESEARCH & DEVELOPMENT

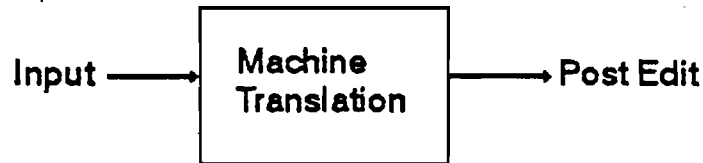
- Library Automation
 - Catalogue & Connectivity
 - Intelligent Gateways
- Translations Automation
 - Scanners & OCRs
 - Dictionary Development
 - Integration, Editing & Publishing
- Commercial Data Bases
 - Experiments
 - CD ROM Data Bases & Jukebox
- CIRC Data Base
 - User Friendly Shell, Autoindexing & NLP
 - Industry Literature - AFMC
- Analyst Tools
 - ASAP, NETMAP, et al



S&T Information Library Automation System (STILAS)



Machine Translations



* Scan
* Optimize
* Recognize
* Verify

* Romanize
* Linguistics
- Syntax
- Semantics

1. Raw
2. Intervention
3. Full Post Edit
4. Publication

DATA BASE COMPARISON

INSPEC

Night Vision Goggles have the advantage of being simple and reliable and offering a natural view of the outside world, albeit one which differs from daylight *vision* in significant ways. Experienced operators agree that a high level of training and a thorough understanding of the limitations of NVGs are essential qualifications. The difficulties for fast-jet pilots are much the same....

CIRC

The Israel Defense Force, Air Force has rejected the FLIR as a piloting aid for helicopters, preferring to rely exclusively on NVGs. According to testimony of Major Ronni Zehavi; experience is the key, NVGs are regarded as nothing more or less than a flying helmet, which it is second nature to use. The Israelis concede that NVG performance.....

OPEN SOURCE ENVIRONMENT

Committees & Groups

- STIC Open Source Subcommittee
 - STIC NORS Working Group
 - Supplier Consortium & CENDI
 - DCI Open Source Joint Task Force
 - DCI Open Source Coordinator
 - Open Source Information Council
 - Requirements Management Committee

OPEN SOURCE ENVIRONMENT

Results of Initiative Briefings

- **FASTC Open Source Initiatives & Issues**
 - AFIC Staff
 - DIA Staff
 - Air Staff
 - PRG
- **FASTC & DIA Open Source Initiatives & Issues**
 - DIA S&T Program Manager
- **Open Source Programs & Initiatives**
An S&T Intelligence Perspective
 - DCI S&T Advisory Panel
- **Open Source Intelligence**
Status of FASTC & STIISP
Programs, Initiatives & Research
 - AFIC Commander
 - Open Source Coordinator
 - Open Source Information Council

Issues & Recommendations

- **Issues**
 - Legal
 - Copyright
 - Sale to Public
 - Intelligence Oversight
 - Funding
 - DIA NSR-29 vs Air Force Initiatives
 - Vulnerability at Mid-Level Guidance
- **Recommendations**
 - Work Legal Issues With Open Source Coordinator
 - Protect NSR-29 Funding
 - Promote Awareness of Funding Needed for OSIS
 - Develop Architecture & Address Funding Later

OSINT - 1

STIISP Get Well & Austere ROW Coverage

Appropriation	FY94	FY95	FY96	FY97	FY98	FY99
3080	500	500	200	200	200	200
3400	2800	3100	3500	3750	4000	4250
3600	500	500	600	600	600	600
TOA	3800	4100	4500	4750	5000	5250

OSINT - 2

DOD OSIS & Required ROW Coverage

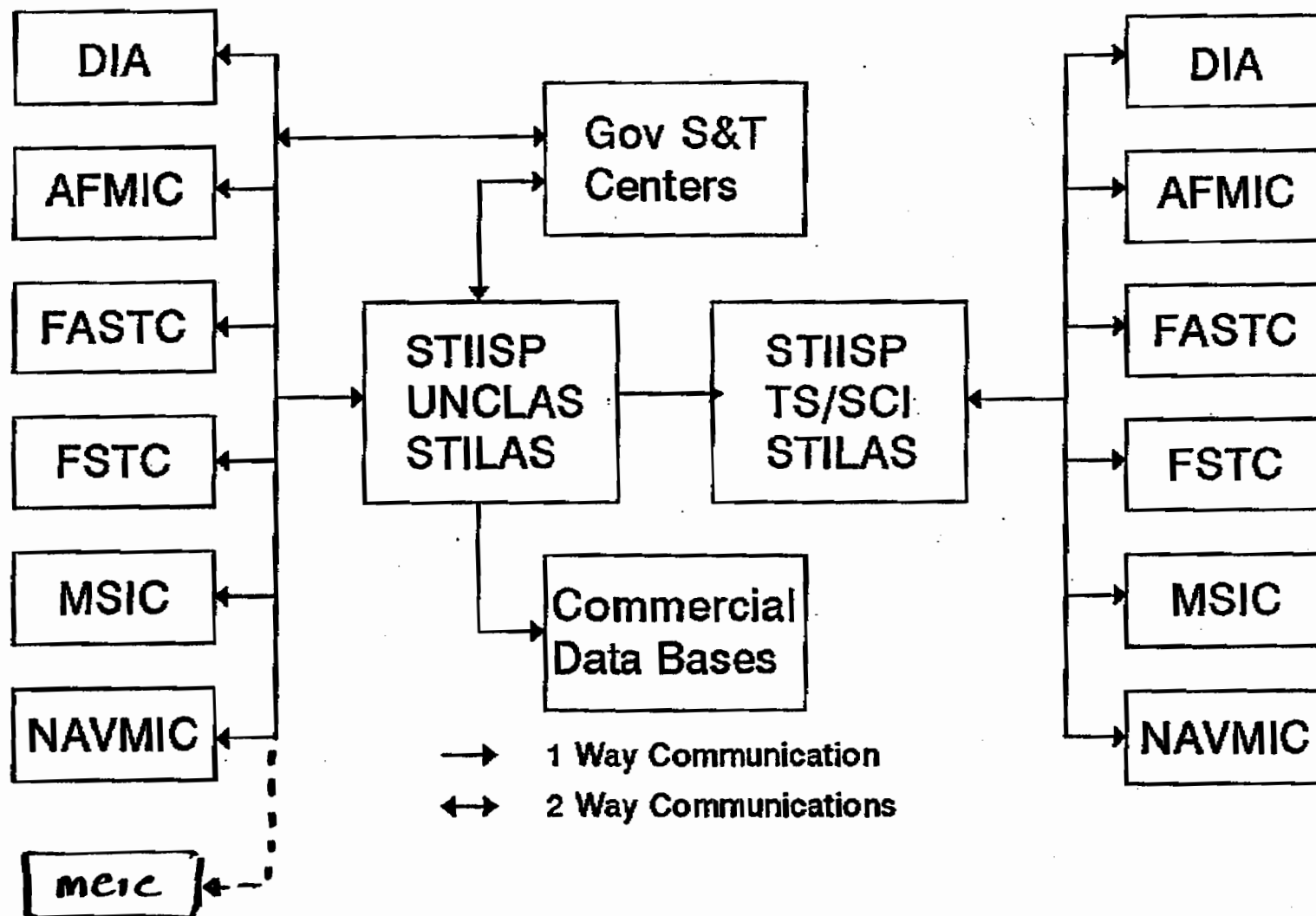
Appropriation	FY94	FY95	FY96	FY97	FY98	FY99
3080	500	500	700	800	1000	1000
3300	0	75	0	3750	0	0
3400	5785	6200	6470	6625	9300	10100
3600	500	500	1000	1000	1000	1000
TOA	6765	7275	8170	14175	11300	12100

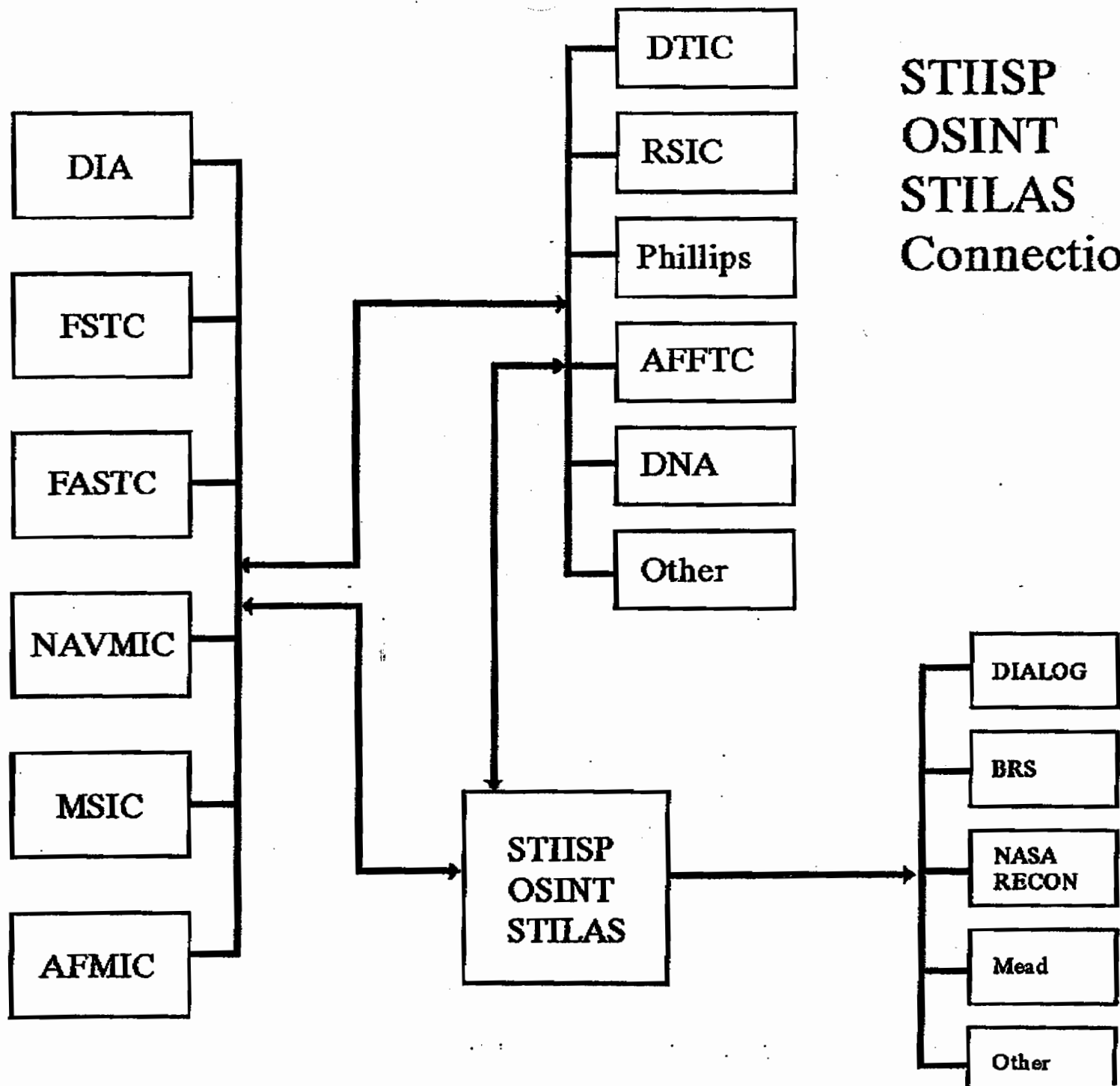
Additive to OSINT - 1

DIA FY93-97 INPUT

Item	FY93	FY94	FY95	FY96	FY97	FY98	FY99
CDB	850K	800K	850K	550K	400K	400K	400K
STILAB	850K	800K	325K	350K	450K	450K	450K
Docutran	550K	400K	350K	325K	375K	375K	375K
R&D	1250K	700K	725K	875K	875K	875K	875K
CIRC	0	1800K	2000K	2500K	2000K	2100K	2200K
Total	3300K	4400K	4050K	4800K	4200K	4300K	4400K

S&T Information Library Automation System (STILAS)





**STIISP
OSINT
STILAS
Connections**

DIA FY93-97 INPUT

Item	FY93	FY94	FY95	FY96	FY97
CDB	650K	600K	650K	550K	400K
STILAS	850K	800K	325K	350K	450K
Docutran	550K	400K	350K	325K	375K
R&D	1250K	700K	725K	875K	975K
Total	3300K	2500K	2050K	2100K	2200K

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DIA Initiative, FY93-97

STIISP Agencies

- Commercial Data Bases
 - Access
 - Host
- Library Automation
- Translations Automation
- Research

RECOMMENDED ROLE

FASTC

- **Primary S&TI OSINT CENTER of OSIS**
 - Minimum - DOD
 - Desired - National
- **Data Base Center - Minimum**
 - CIRC SLAVIC
 - CIRC ROW
 - Linkages
- **Data Base Center - Desired**
 - Commercial, Government, Foreign Storefront
 - Gateway
 - Host
- **Machine Translations Center**
- **Technological Development Center**
 - Support Data Base Center Role
 - Support Machine Translation Center Role

FUNDING SUMMARY

(\$000)

	FY94	FY95	FY96	FY97	FY98	FY99
Level 1	3800	4100	4500	4750	5000	5250
Level 2	6075	6925	7800	13775	10865	11660
Total	9875	11025	12300	18525	15865	16910
Level 3	5640	6040	6320	6915	7510	8110
Total	15515	17065	18620	25440	23375	25020

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FRSTC/IMDR WPAFB OH

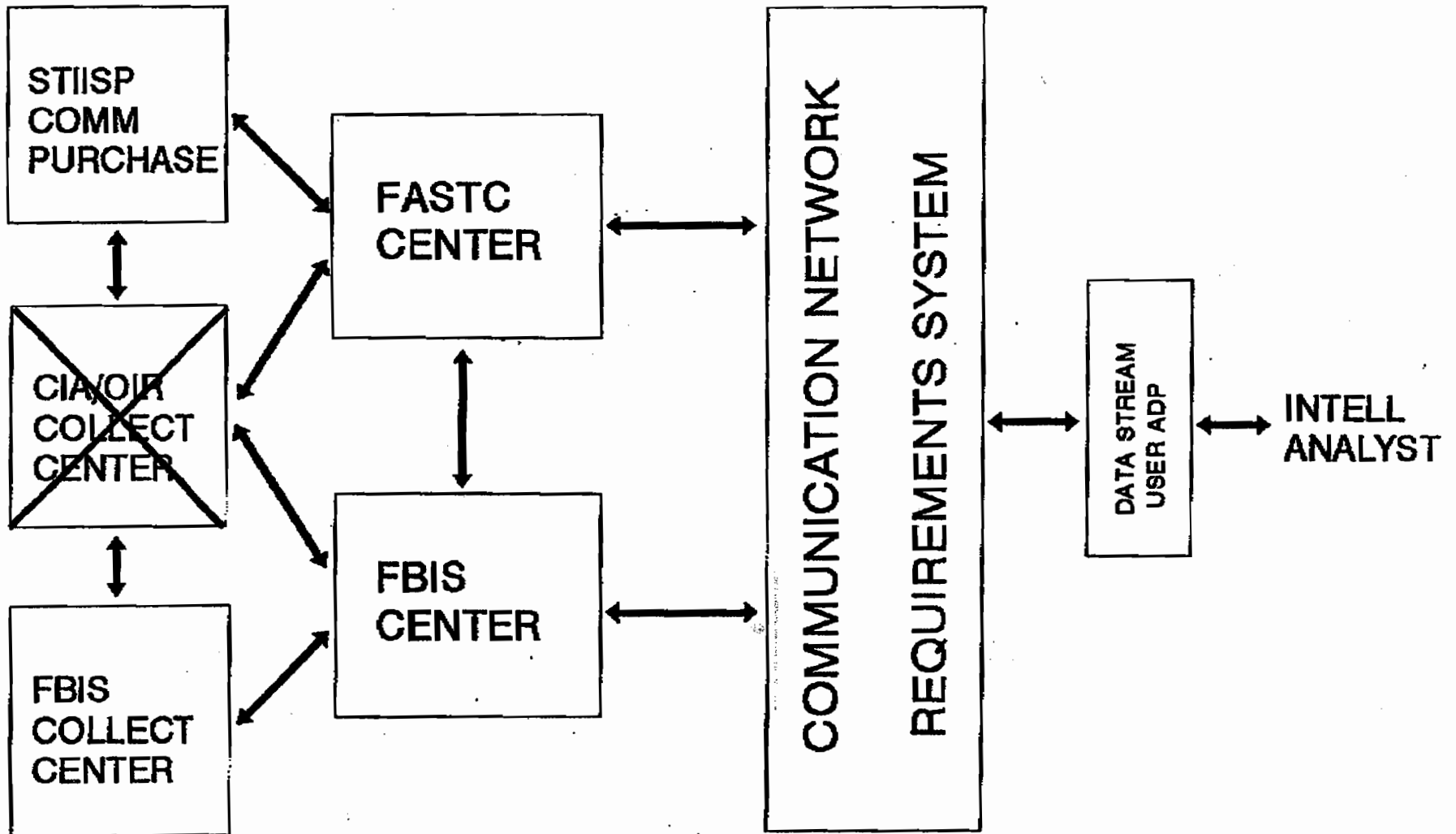
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Air Force Initiatives, FY94-99

- **Level 1 - STIISP**
 - Survival
 - Austere ROW Coverage
 - Austere R&D
- **Level 2 - DOD S&T OSIS**
 - Reduced Slavic Coverage
 - Reasonable ROW Coverage
 - R&D Insertion
 - Defense Open Source Requirements System
- **Level 3 - National S&T OSIS**
 - Non-DOD Titles - Slavic & ROW
 - National Open Source Requirements System

DISTRIBUTED OSINT CENTER CONCEPT

Exemplative Centers



DISTRIBUTED OSINT CENTER CONCEPT

CIRC SLAVIC
CIRC ROW
PINNACLE
JPRS
GOVERNMENT
FOREIGN
COMMERCIAL

LITERATURE
DATA BASES

LIBRARIES
FSL
FBIS
OIR

ORDERING

NEWSPAPERS
PRESS RELEASES
TELEVISION
RADIO
VIDEO

MEDIA
DATA
FLOW

ORDERING
HOLDINGS
TRANSLATIONS

INFO
DATA BASE

INTERFACE

TOOLS

DATA STREAM

USER

SERVICES