

DEFENSE INTELLIGENCE PRODUCTIVITY IN THE 1990'S:

EXECUTIVE OUTLINE

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- ♦ Budgetary constraints, competing Service requirements, and the projected drop over the next 20 years of qualified applicants will reduce the number of people available to perform defense intelligence missions in the 1990's.

- ♦ If defense intelligence is to meet the challenges of the 1990's with a smaller workforce, the productivity of the remaining people must be dramatically improved.

- ♦ "Productivity" can be defined as the optimization of knowledge, time, product mix, process mix, and organizational structure to accomplish the mission.

- ♦ Building blocks for productivity increases include:
 - As Individuals
 - Quality of new hires and retention of most productive workers¹

 - Quality of tools provided employees

¹ To some extent the issue of attracting and retaining quality employees goes in a vicious circle: good people are needed to create good products which in turn justify funding of good tools which in turn attract the best people. At this point a strategic "leap of faith" is needed; only top-level support for a major investment in the RECAPITALIZATION of the intelligence infrastructure will lead to adequate intelligence capabilities in the 1990's and beyond.

- Quality of training & education as well as general work experiences provided each employee²
 - Quality of employee interaction with customers (policy-makers/commanders)
 - Quality of employee access to data (both open source & classified, in all media - hard & soft text, voice, imagery, graphics & mapping data)
 - Quantity and criteria of compensation, allowing employees to properly support a family, own a home, and fulfill personal goals
- As Members of a Group
- Facility of interaction among employees (including voice & electronic mail, ready identification of others with common requirements & interests)
 - Quality of employee management (including reduction of middle management positions and INCREASE of management attention to strategic direction)³

² The importance of travel as well as training & education cannot be exaggerated. Under current circumstances employees are deprived of travel opportunities both because of budgetary constraints, and because the false urgency of "current" requirements causes their managers to cancel travel in favor of day to day production. The intuitive understanding essential for analysis & forecasting can only be developed in the field. Training & education are the other half of the equation - it is foolish to expect good analysis from individuals whose professional frames of reference are ten to twenty years out of date; only a strong program of continuing education will keep analysts current - the best analysts WANT more training.

³ There is no reasonable prospect for most military intelligence officers of achieving general officer rank; there is also no reasonable prospect for the best qualified civilians to achieve super-grade status. Intelligence cannot solve this fundamental lack alone; both civilian and military intelligence professionals must be integrated into operational and policy

- Flexibility & timeliness of recognition system (including both tangible cash and intangible award system)⁴
- Over-all quality of employee environment (including especially the provision of parking/mass transit, health/shower facilities, and a commitment to a non-smoking environment)
- Flexibility & timeliness of position management permitting rapid re-training, re-location, or outplacement for unproductive employees⁵

♦ The employee of the 1990's will be the "knowledge professional" (sometimes called the "gold collar worker"):

- such an individual cannot be directed or managed in accordance with standard operating procedures;
- they are productive only to the extent they feel responsible for and are interested in their work;
- management's challenge will be to create an effective

positions in such a way as to permit them to both impact on operations and policy "from the inside", and to qualify for general officer/super-grade status as generalists, not just as intelligence professionals.

⁴ Civilians are warriors also. Defense civilians should be eligible for all awards and medals, and recognized as frequently as their military brethren.

⁵ Experts in human productivity such as Peter Drucker and Robert Carkhuff emphasize that there is no such thing as an unsalvageable employee - virtually everyone wants to excel and be recognized. Too frequently employees fail because management cannot afford the time or the expense of properly training, equipping, and organizing individual employees. Defense Intelligence in the 1990's must devote resources to recapitalizing its human element. EEO gains can be protected by emphasizing EEO priorities in relocating & retraining specific individuals.

channel for their productivity, determining "what" they do and "who" they communicate with, and to concentrate less on specifying "how" they work.

♦ In the Age of Information:

- productivity increases come from handling information more efficiently;⁶
- humans will remain the primary means of transforming raw data into information; and
- improved information technology applications are the primary means of enabling humans to be more productive at this task.

♦ Strategic directions which should be pursued include:

- Emphasize data availability to the analyst (both in terms of timeliness & comprehensiveness)
 - Digitization of hard copy inputs
 - Open source exploitation strategy
 - Automated routing/flagging of relevant data
 - Multi-level security and cross-Service, cross-Agency on-line data access⁷

⁶ Stress must be placed on the fact that this does not mean more production, it means better more relevant, timely, and ACTIONABLE production.

⁷ The trade-off between security & the value of free access to information can be reduced through the implementation of multi-level security programs and the development of artificial intelligence programs which routinely sanitize & declassify information for possible human validation & release. In cases where "sources & methods" are involved, it is possible to use REVERSE POINTERS which inform the owner of the sensitive information of a query, permitting a tailored response as appropriate. Right now the multiple pipelines of unintegrated information (both by intelligence discipline and by organization) are shackling the ability of our government to understand the

- Emphasize global unrestricted data flow
 - Online connectivity between Country Team, analysts, and policy-makers
 - Complete review & restructuring of defense communications to eliminate dedicated channels and accommodate digital mapping data, video teleconferencing, secondary imagery dissemination, and multi-media electronic mail
 - Analyst access to "operational" traffic
 - Automated sanitization as required

- Emphasize decentralized data exploitation
 - Decentralized collection management with priority to the Country Team and Theater Commander
 - Decentralized production management with emphasis on "living" documents and databases

- Emphasize data-based policy
 - Automation of "historical memory" through digitization of pertinent records and creation of selected expert systems
 - Insistence on valid updated "threat" being considered at each milestone in acquisition process as well as force structure and training evaluation

- Emphasize increased data products and direct access by consumer (policy-maker & tactical commander) to organized data
 - No more collection for sake of collection; new systems must program resources for processing & dissemination
 - No more production for sake of production; "type" products are less important than capability to

emerging threats of the 1990's.

desktop publish answers to specific questions in near real time⁸

- Policy-maker must be able to access intelligence electronically, in near real time, and must be able to "drive through" intelligence data at different levels (e.g. hypermedia branching)

♦ Importance of top-level emphasis on the optimization of employee potential cannot be over-stated:

- Quality of individual employee will affect frequency & depth of "sparking" and intuitive insights
- Quality of tools provided each employee will affect quantity of data reviewed, reliability of review, and quality of analysis process
- Quality of training provided each employee will affect currency and breadth of analysis
- Quality of employee access to customers and data will affect relevance and timeliness of analysis as well as accuracy of analysis
- Facility of interaction among employees will reduce redundancy and inconsistency while increasing cross-Service, cross-Agency joint perspectives

⁸ Among other implications, this suggests that "current" production is over-emphasized, as is the requirement for analysts to "produce" a hard-copy publication. Much more could be done in developing a cadre of both military and civilian analysts and foreign area officers who work together to create country or region-specific "skunk works" able to develop long-term strategic and operational understanding of core issues. The ability to quickly answer any specific question based on both intuition and depth of understanding should be prized above the ability to put "data dumps" out the door. Today we emphasize products which force the consumer to choose what to read and what to believe; we should be moving toward a "live" interaction between consumers, analysts, and information which leads to education, insight, and dialogue.

-- Quality of employee management and over-all quality of employee environment will affect retention rate and productivity

◆ Specific recommendations for improving productivity of defense intelligence employees:

-- Quality of People

- Implement a joint Civilian Intelligence Personnel Management System (CIPMS) and convert all civilians to a single joint Defense Intelligence career pattern
- Provide early retirement incentives for civilians in select Defense Intelligence positions which either require sacrifices beyond the norm (e.g. clandestine HUMINT), or which must be realigned to permit creation of new capabilities
- As productivity improves within Defense Intelligence, reduce dependence on external assistance - channel savings toward improved tools, training & travel, and compensation
- Increase funds available for civilian pay and allocate those funds on a meritorious basis rather than as an across the board pay increase
- Provide for each analyst to spend at least 30 days a year in training and/or travel to foreign countries
- Provide for each analyst to procure personal copies of professional books and materials as desired and to retain such materials

-- Quality of Tools

- Establish a generic intelligence analyst's workstation along the lines of the CATALYST Project at the Office of Scientific & Weapons Research, Central Intelligence Agency⁹
- Provide central system planning & procurement

⁹ There is no equivalent Defense Intelligence example. Neither DODIIS CMW, EMERALD, LATIN, SIMS, KISS, RAPIDE, nor other systems are as mature in either their functional requirements or their integration of artificial intelligence applications.

assistance to the ten new intelligence facilities¹⁰; do not rely on DIA/DS for this service - ESD/MITRE and CATALYST could "bootstrap" tool situation

- Increase funding and accelerate schedule for development of multi-level security system enabling global on-line connectivity of operators, analysts, and non-government experts¹¹
 - Establish an Open Source Committee at the Intelligence Community Staff level
 - Fund a global program of open source exploitation (perhaps jointly with business) which leads to the near-real-time digitization of foreign S&T and general interest publications
 - Establish a central repository for open source data (perhaps jointly with a major university) which enables the business and academic communities to increase national productivity through online access to foreign information
 - Establish a standard optical disk dissemination media and work toward minimizing hard-copy products
- Quality of Management & Environment
- Encourage managers to facilitate direct analyst access to individual policy-makers and commanders
 - Train managers to serve as bridge-builders and communicators
 - Compensate managers based in part on independent evaluation of their subordinates' production
 - Establish as a critical performance objective for all managers the task of recapitalizing their tools in order to maximize employee productivity

¹⁰ USMC INTCTR, USCG INTCTR, TRANSCOM, SPACECOM, FORSCOM, NORAD, JTF 4, JTF 5, JTF 6, NNIC.

¹¹ The absence of multi-level security systems remains the greatest obstacle to most of the productivity initiatives discussed in this paper; without multi-level security the analyst will not be able to fuse all-source intelligence and will not be able to communicate with analysts at other agencies and useful but uncleared points of contact outside Defense Intelligence.

- Ensure minimum space and amenities standards are adhered to in accommodating intelligence personnel;
- Move as much of the intelligence infrastructure as possible outside the national capital area in order to restore basic quality of life for most employees¹²
- Establish a standard analytical work environment consisting of furniture and equipment including a personal printer and access to a production copier, a high performance scanner, and distributed processing capabilities

♦ Bottom Line: Objective management of intelligence in the 1990's with require firm emphasis on quality: in people, in tools, and in access to and sharing of data within the government. Expenditures must be evaluated in terms of their contribution to over-all defense intelligence productivity, not simply in terms of relative cost within isolated Services or Agencies.

¹² This goal does not conflict with the equally important need to increase analyst interaction with consumers. Direct on-line consultations and secure voice access. as well as video-teleconferencing and routine visits to the NCA, will permit achievement of both goals.

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