

See m-702

Early Warning of Advances in Science and Technology

WHAT IS IT?

An attempt to sense the "PREVAILING WINDS" in Science and Technology

WHY?

Provide insight into developments that could change the power balance

- Real Changes ("Super-Weapons")
- Perceived changes in technological prowess (e.g. Sputnik)

Provide lead time for reacting to possible future military developments ✓

Assist in intelligence collection and analysis

- Collect important information while it is still unclassified ✓
- Provide lead time to reorient collection activities ✓
- Possible aid in understanding enigmas ✓

Scientific & Technical
Intelligence Committee

Approved For Release 2005/04/28 : CIA-RDP79M00098A000500020004-1

INTERVIEWS BASED ON ONE KEY QUESTION ----

What are the emerging or rapidly moving areas of Science or Technology potentially important to National Security in the 80's?

Scientific & Technical
Intelligence Committee

Approved For Release 2005/04/28 : CIA-RDP79M00098A000500020004-1

25X1

Approved For Release 2005/04/28 : CIA-RDP79M00098A000500020004-1

Approved For Release 2005/04/28 : CIA-RDP79M00098A000500020004-1

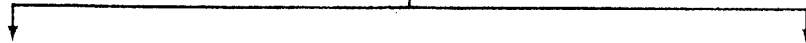
Analysis

Approved For Release 2005/04/28 : CIA-RDP79M00098A000500020004-1

INTERVIEW NOTES



IDENTIFICATION OF SIGNIFICANT ITEMS



SCIENCE OR TECHNOLOGY

Life Sciences
Computer Science
Chemistry/Materials
Physics/Astronomy

} 58%

High Energy Lasers
Space Technology
ASW Technology

} 19%

Misc.
Negatives

} 23%

PROBLEM OR THREAT

Soviet-Specific 43%

Worldwide 57%

Confidential
Scientific & Technical
Intelligence Committee

What Stands Out In Science & Technology?

- Genetic engineering
- Understanding the brain and the nature of thought
- Likelihood of interaction with intelligent extraterrestrial life
- Logic devices that will be cheap, smart, human-adaptive, and widely distributed
- Ability to synthesize arbitrarily complex organic materials tailored for specific biological or physical properties
- Understanding the strong interactions and the possibility of new energy and radiation sources
- High energy laser in space
- Construction of large structures in space
- Breakthrough in ASW that will seriously impact our undersea deterrent

CONFIDENTIAL
Scientific & Technical
Intelligence Committee

CONFIDENTIAL

WHAT PROBLEMS/THREATS ARE FORESEEN?

- Worldwide general threats are seen to outweigh Soviet-specific high technology threats *not pri. economic = shortages = organize econ. affairs =*
- Worldwide general threats are highly economic-related while Soviet-specific threats are not seen as primarily economic in nature *economic-rel.*
- Some unusual threats that stand out are:

- Soviet attacks on or from space 25X1
- Economic warfare - *energy - food = concern money -* 25X1
- Chemical/Agricultural warfare 25X1
- Weather/Climate modification 25X1
long term changes - aerosol - conservation req = will do it =

[Redacted]

- Break-up of U.S. alliances is seen to put a premium on naval superiority but at the same time one wants to look for unconventional means of global transport *Af - new horizons =*
- Some surprising gaps
 - Conventional land warfare -
 - Electronic warfare - *mainly - personally thought up,*
 - Vulnerability of computer-based systems to penetration

[Redacted]

Scientific & Technical Intelligence Committee

25X1