

I.

가

가

가

가

EC(European Community), NAFTA

WTO

가

가

가

가

'90

(ILS: Integrated Logistics Support)

/

CALS(Computer Aided Logistics Support ;

Commerce At Light Speed .)

가

가

'80

(Spin-Off)가

'90

(Spin-On)



가

가

가 가

(C⁴ISR:Command, Control, Communication, Computer, Intelligence, Surveillance and Reconnaissance)

가

GPS

1

150

(JED.Sept.97,pp26)

III.

(EW : Electronic Warfare)

效果 友軍 電磁波 “敵軍 電磁波 保障 拒否”

(CPU : Central Processing Unit)가

Software

Software Warfare / (EIW : Electronic & Informatic Warfare)

“敵軍 電磁波 拒否 效果 誤 動作 誘發 攪亂 友軍 電磁波 保障 가”

Virus / Software Software

가 가 (Hacking)

가 가

가

電子戰 1次的 對象

- RADAR - RADAR ?
- ✿ 電磁波(Radio wave)
 - ☞ Electromagnetic Wave
- ✿ 探索(Detection)
 - ☞ 反射波 信號 有無 ()
 - (And)
- ✿ (Ranging)
 - ☞ 電子波 走行時間 測定

RADAR가

2

가

가

가

가

가

가

Pulse Repetition Period

Time)

가

(

:

50 1 가

가 가

50 1 가

가

가 50 1

50

가 50Hz

가 1 30 Km

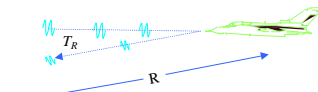
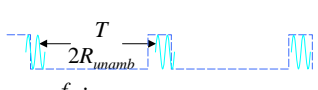
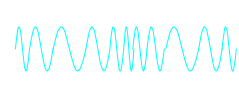
50

1 30 Km 100

1 300Km

.(600Km)

Radar 波 特性

- $R = \frac{c}{2} T_R$

- $R_{unamb} = \frac{c}{2 f_p} = \frac{T}{2}$

- $f_d = \frac{2 V_r}{\lambda}$


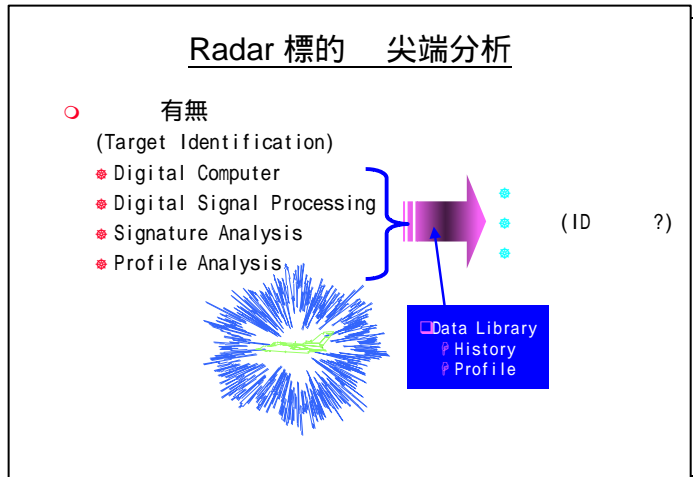
V_r :
 λ :

Digital

Digital Signal Processing
가

Digital Signal

Processing



Signature Analysis

Profile Analysis

가

가

(Random Frequency Hopping

Random Frequency

Chirping).

가

가



/ 가 (Expendable) 가
가 100m

●MEMS (MMIC : Microwave Monolithic Integrated Circuit) 가 (MEMS : Micro Electromechanical System)

● 가 가 (UAV: Unmanned Aerial Vehicle) 가 가 NATO 가

● (Interoperability) 가 (Spin-on) 가 (Spin-off) 가 (Spin-up) 가 MMIC , MEMS , (DSP : Digital Signal Processing) , Spin-off (TWT : Traveling Wave Tube) , Spin-up

(PMS : Power Management System),

, GPS ,

●Software Warfare , (Virus Vaccine), (Vertual Virus Immune) 가 (Cyber Attack)

가

가

가

Upgrade

가

- Simulator – Simulator , , ,
 Simulator , ,
 Simulation , 가
 Simulator 가 (Preprocessor),
 (Central Processing Unit) 가 ,

가 Sonar

가 Simulator

가 Mainframe Computer RISK Processor
 가 (CPU)

Workstation

가 Simulator가

가

(AIEWS : Advanced Integrated Electronic Warfare System)

(LAN : Local Area Network)

3 (Display)

가 (NRO:National Reconnaissance Office)

“ (Integrated Overhead SIGINT Architecture 2)”

가
“ (Collection On Demand)” 가

가

가

가

Spin-up

’98

가

(IRIDIUM)

66

6

72

40Km-400Km

가

(Open System Architecture) 가
가



(SIGINT)

(ESM : Electronic Support Measures)

30

F-4G

“Wild

Weasel”
Radiation Missile)”

F-16

“HARM(High speed Anti

ECR Tornado

E-6B

(EOB : Electronic

Order of Battle)

(ESM)

(COMINT)

Guardrail

가

가

가

(MAWS : Missile Approach Warning System)

