



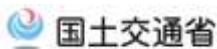
Bird Strike Control and Reduction in JAPAN

30th IBSC Conference
- Stavanger, Norway 25 - 29 June, 2012

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Ministry of Land, Infrastructure, Transport and Tourism

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JAPAN Presentation PROGRAM



Tuesday 26 June

10:50 – 11:15

- ◆ Bird Strike Control and Reduction in JAPAN
- Tokui Takahiro, Civil Aviation Bureau JAPAN

Thursday 28 June

-Parallel session 2

15:40 – 16:05

- ◆ Bird Detection System Deployment for Tokyo International Airport
- Eichler Rafal, NEC Corporation

16:30 – 16:55

- ◆ Image sensing technique for flying bird detection and classification in natural background
- Takeshima Kotaro, Hokkaido University

Friday 29 June

9:45 – 10:10

- ◆ Height distribution of BS occurrence -some analysis of worldwide BS database
- Takeda Yasushi, Tokyo Institute of Technology

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SUMMARY of Presentation



◆ Bird Strike Control and Reduction

- Organization

National Committee

Local Committee

- Best Practice

Implementation for Tail-wind Runway assignment

Process for AIP JAPAN (RJGG AD2.20)

- Program

◆ BIRDS (Birds position Information Radar Display System)

Tokyo INTL Airport /RJTT (HANEDA)

Background

Design Concept

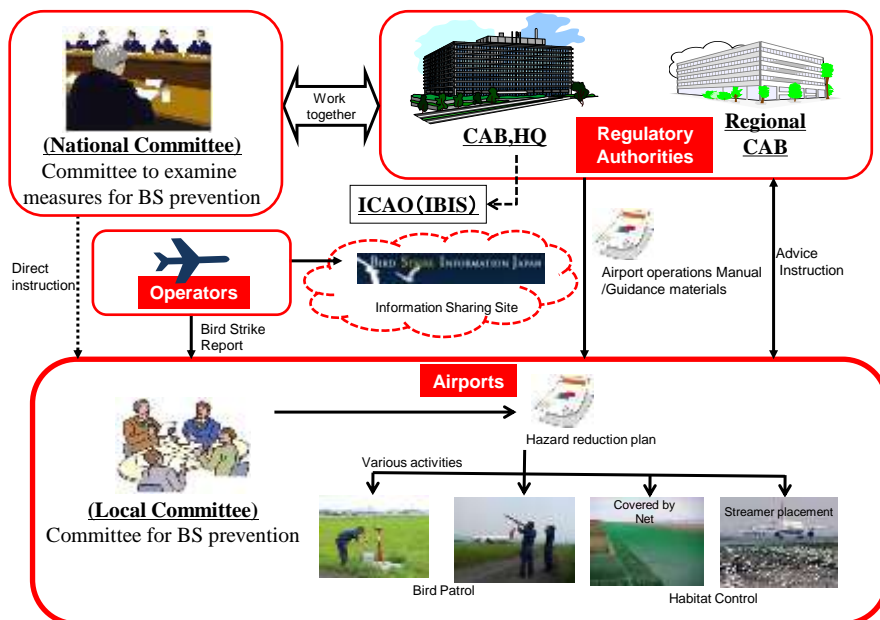
Composition

Screen Image / Demonstration

Operational Evaluation PLAN

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Organization



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(National Committee)**Member**

- ◆ Wildlife Control Specialists
- ◆ Aircraft Operator
- ◆ Ministry of the Environment
- ◆ Ministry of Defense
- ◆ Ministry of Land Infrastructure, Transport and Tourism
- ◆ Airport Administrator
- ◆ Bird Patrol Officer

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(Local Committee)**Member**

- ◆ Airport Administrator
- ◆ Air Traffic Controller
- ◆ Flight Operation Information Unit
- ◆ Airport/Navigation Facility Management Unit
- ◆ Local Government
- ◆ Aircraft Operator
- ◆ Terminal Building Management Company
- ◆ Bird Patrol Officer, etc.

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Bird Activity – Tail-wind Runway Assignment (Implemented in AIP)

Chubu Centrair INTL Airport /RJGG

Seagull resting on the runway

Location at Chubu Centrair INTL Airport

AIP JAPAN (RJGG AD2.20)

AIP JAPAN RJGG AD2.20 LOCAL TRAFFIC REGULATION 1.2.2

To prevent bird-strikes, runway may be selected considering the location of bird activity when wind is about 7 knots or less.

AIP: Aeronautical Information Publication

RWY	THR	Remaining RWY length	RWY	THR	Remaining RWY length
06R	06	3,020m (9,908ft)	06L	06	3,020m (9,908ft)
06R	06	2,700m (8,858ft)	06L	06	2,700m (8,858ft)
18	06	2,500m (8,199ft)	36	06	2,500m (8,199ft)
06L	06	1,900m (6,233ft)	06	06	1,900m (6,233ft)
06R	06	1,820m (5,974ft)	06	06	1,820m (5,974ft)

Process



- **Local Committee collaboration**
(Air Traffic Controller understanding)
- **Top Agreement**
- **National Committee confirmation**

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Program



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BIRDS

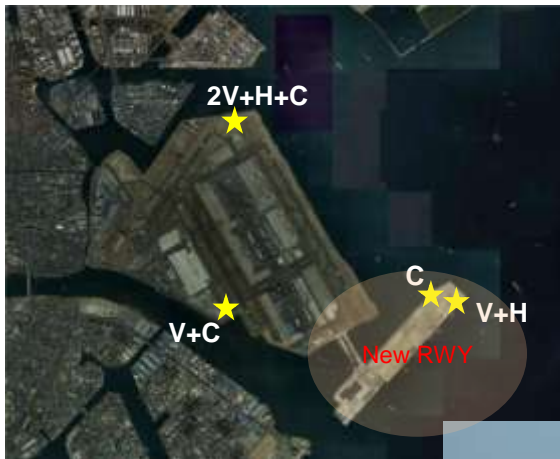


Birds position Information Radar Display System (BIRDS)



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Tokyo INTL Airport /RJTT (HANEDA)



Runway

- A : 3,000 x 60m
- B : 2,500 x 60m
- C : 3,000 x 60m
- D : 2,500 x 60m
- (New Runway in 2010)

Hours of Operation

24 Hours

Number of Traffic

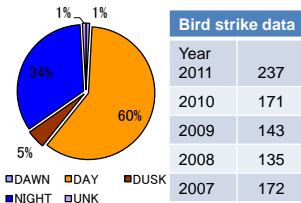
380,000per year
(Approx 1,000flights/day)

BIRDS	
Vertical radar(V)	4
Horizontal radar(H)	2
Camera	3
Ultrasonic Device	3



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Background



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Design Concept



Tactical Approach

(Short term – real time monitoring)

- ◆ Ability to detect birds flying at higher altitudes through utilization of radar technologies
- ◆ Ability to detect activity of birds at ground level and low altitudes through utilization of cameras
- ◆ Providing real time information to bird patrollers

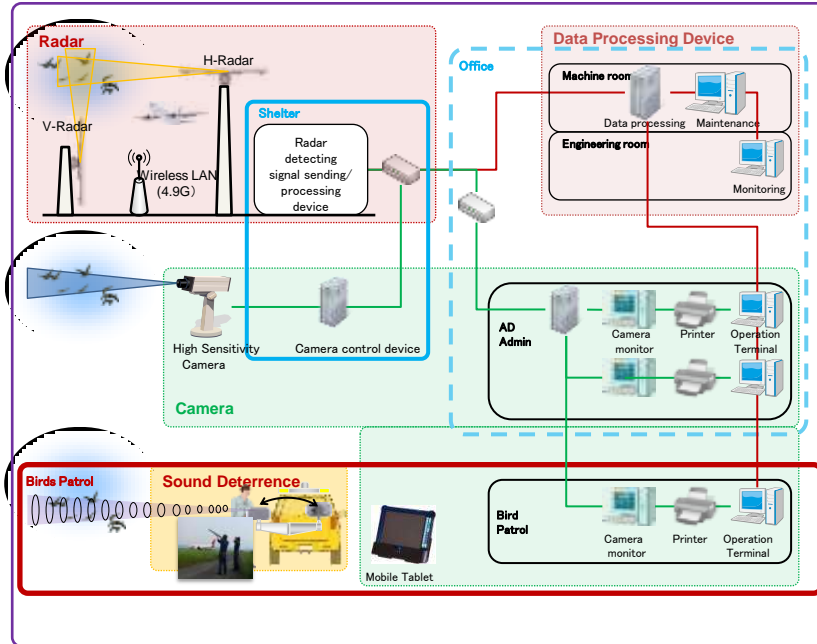
Strategic Approach

(Long term – data analysis)

- ◆ Better understanding of bird activity information and environment at HANEDA Airport
- ◆ Data utilized to enhance the efficiency of bird habitat control in long term strategy, leading to improvement in operations and reduction of bird strikes

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Composition



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Screen Image



Horizontal Radar

Birds detecting Symbol
Strength RCS: ● ● ● ● ● > weak RCS
Vertical RCS: ● ● ● ● ●

Significant Monitoring Area (ALARM RINGING)

Check Flying Altitude

Birds species registration

Species	Number
Duck	5

Date/time observed: 2010/07/07 09:49:40

Point of observed: 10° 56'N 102° 56'E

*Birds patrol officer input observation birds species data by using mobile tablet

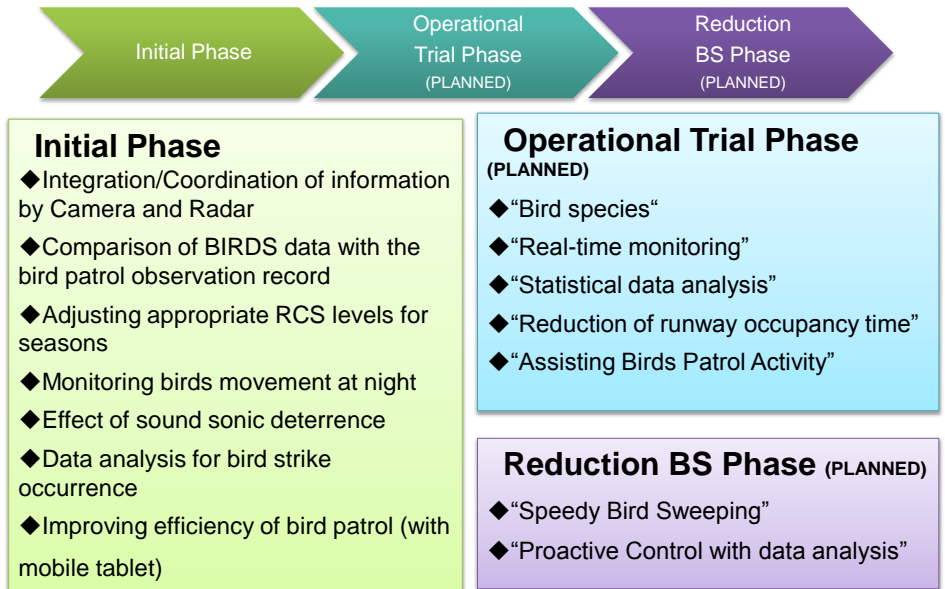
Vertical Radar

16FR 100 34L

Birds camera monitoring

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Operational Evaluation PLAN



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The End (Sound deterrence)



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