



ICAO/ACI-LAC SEMINAR ON BIRD HAZARD, ENVIRONMENTAL PROTECTION AND LAND USE AT AIRPORTS FOR THE NAM/CAR/SAM (AMERICAS) REGIONS

“Bird Control and Reduction Committees In the South American Region”

***Dr. S.H. Cardoso, Ph.D.
ICAO - AGA Regional Officer***

SOUTH AMERICAN REGION

Miami, April 24 2001

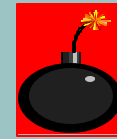
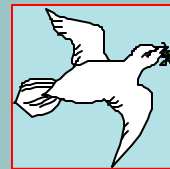


“Bird Control and Reduction Committees In the South American Region”

- **INTRODUCTION**
- **BACKGROUND**
- **BEYOND THE MATERIAL AND HUMAN LOSSES**
- **ICAO RECOMMENDATIONS**
- **COMMITTEES IN THE SOUTH AMERICAN REGION**
- **CONCLUSIONS**



INTRODUCTION



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INTRODUCTION



CONSCIOUSNESS OF THE PROBLEM



ICAO ▸ SINCE THE 60'S

▸ TECHNICAL PUBLICATIONS

▸ SEMINARS/WORKSHOPS

▸ IBIS SYSTEM



WORKSHOP IN SANTIAGO (1993)

▸ NATIONAL COMMITTEES

▸ REGIONAL COMMITTEE



INTRODUCTION



NOT MUCH HAS BEEN DONE SINCE THEN



LACK OF NOTIFICATION/INFORMATION



BIRD STRIKE IS AN ECONOMICAL AND SOCIAL PROBLEM



ICAO RECOMMENDATIONS



COMMITTEES IN THE SOUTH AMERICAN REGION



BACKGROUND



ICAO & BIRD STRIKE

SINCE 1965

AUTOMATED NOTIFICATION PROCESS (1980)

OVER 78000 BIRD STRIKE INFORMATION



LACK OF NOTIFICATION/INFORMATION

ICAO IBIS HANDBOOK (1996) & 228 COUNTRIES

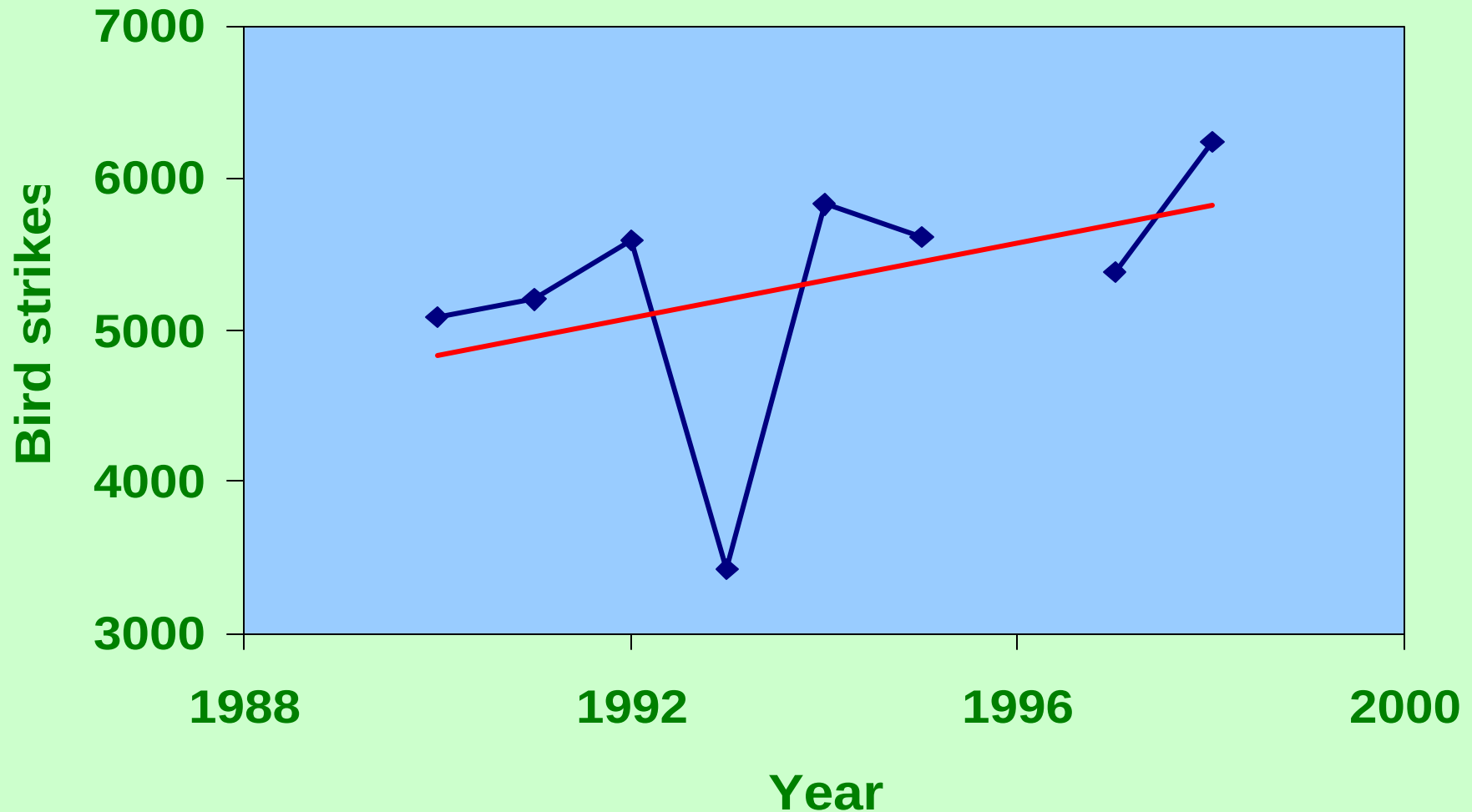
ONLY 38 REPORTED



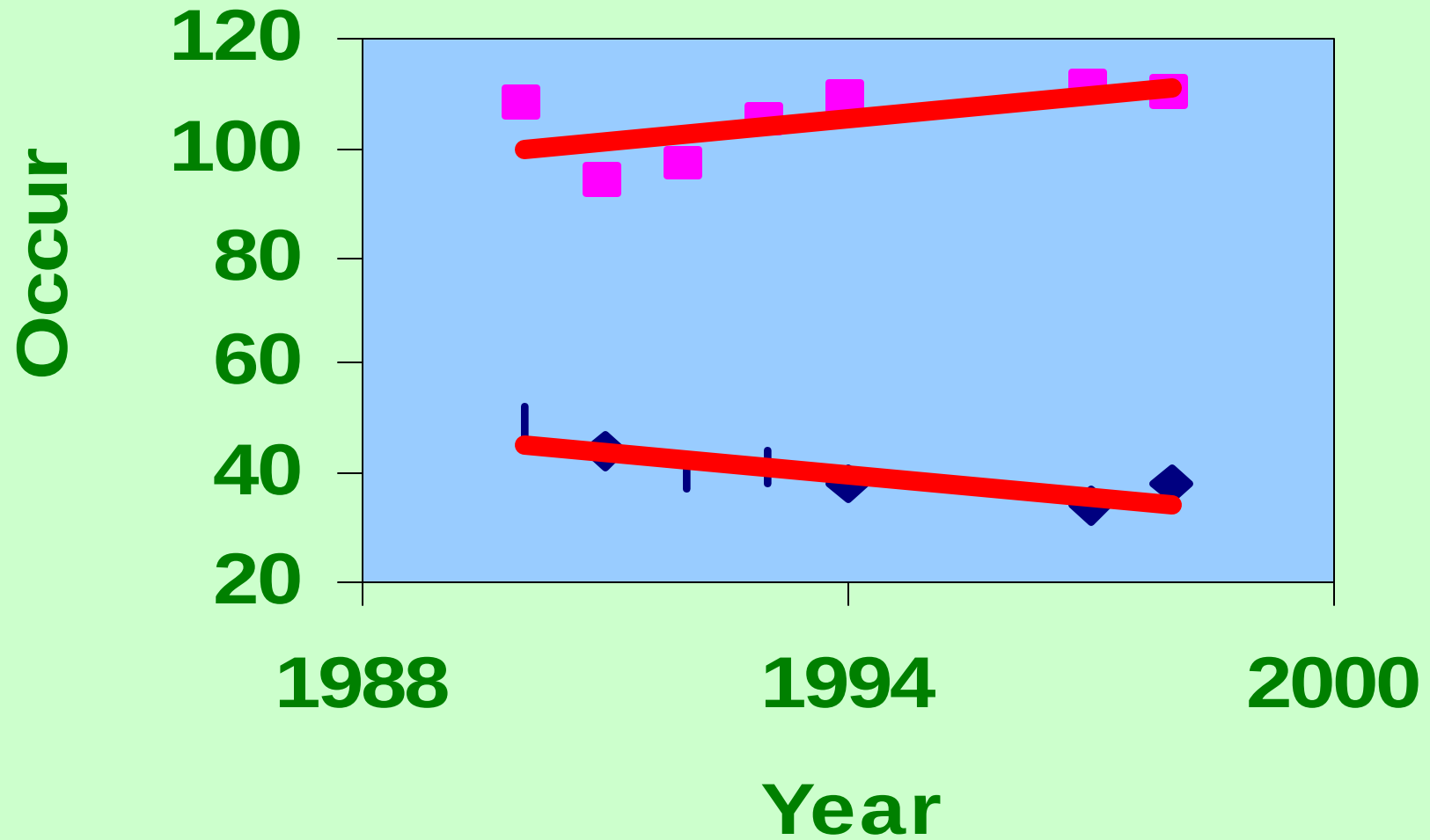
USA & ONLY 20 % OF BIRD STRIKES REPORTED TO FAA



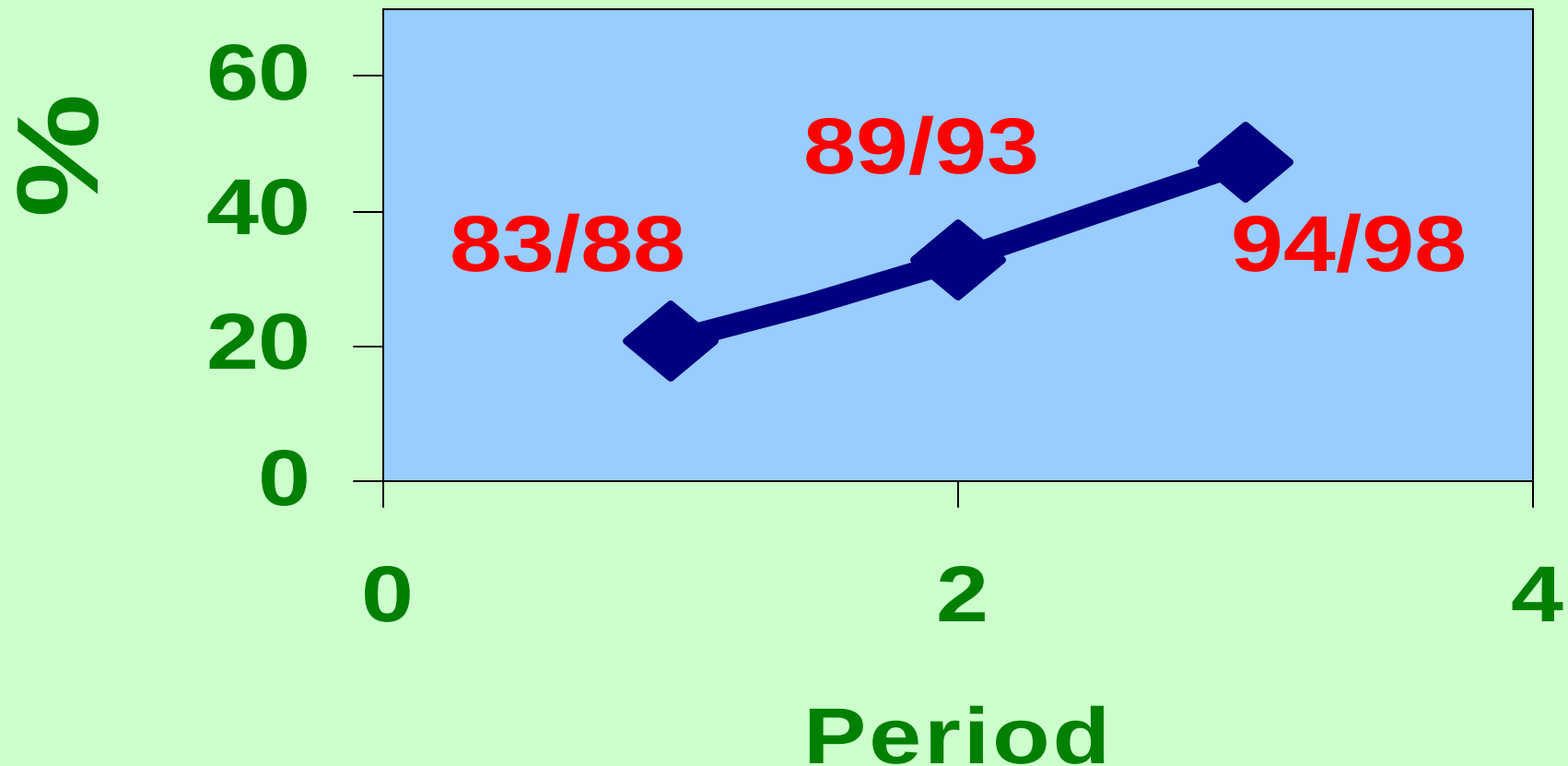
TOTAL NUMBER OF BIRD STRIKES (ICAO IBIS SYSTEM)



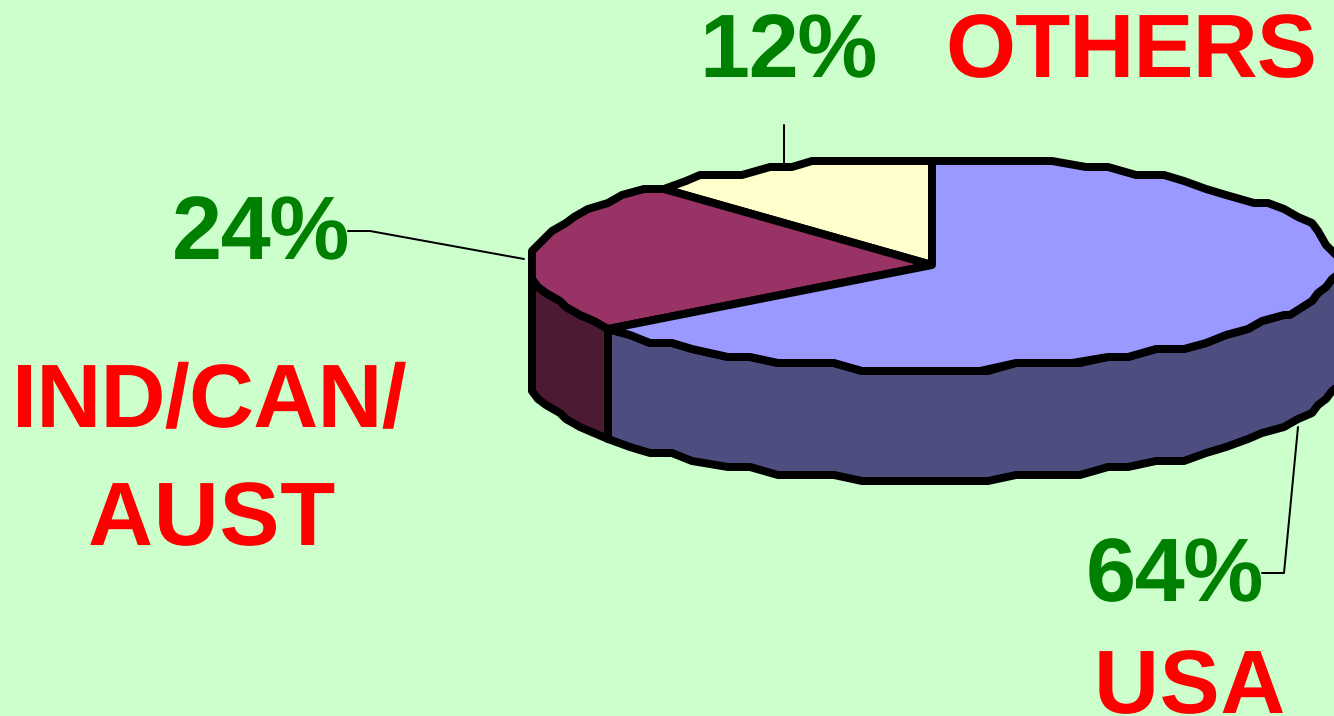
BIRD STRIKE - ICAO SYSTEM



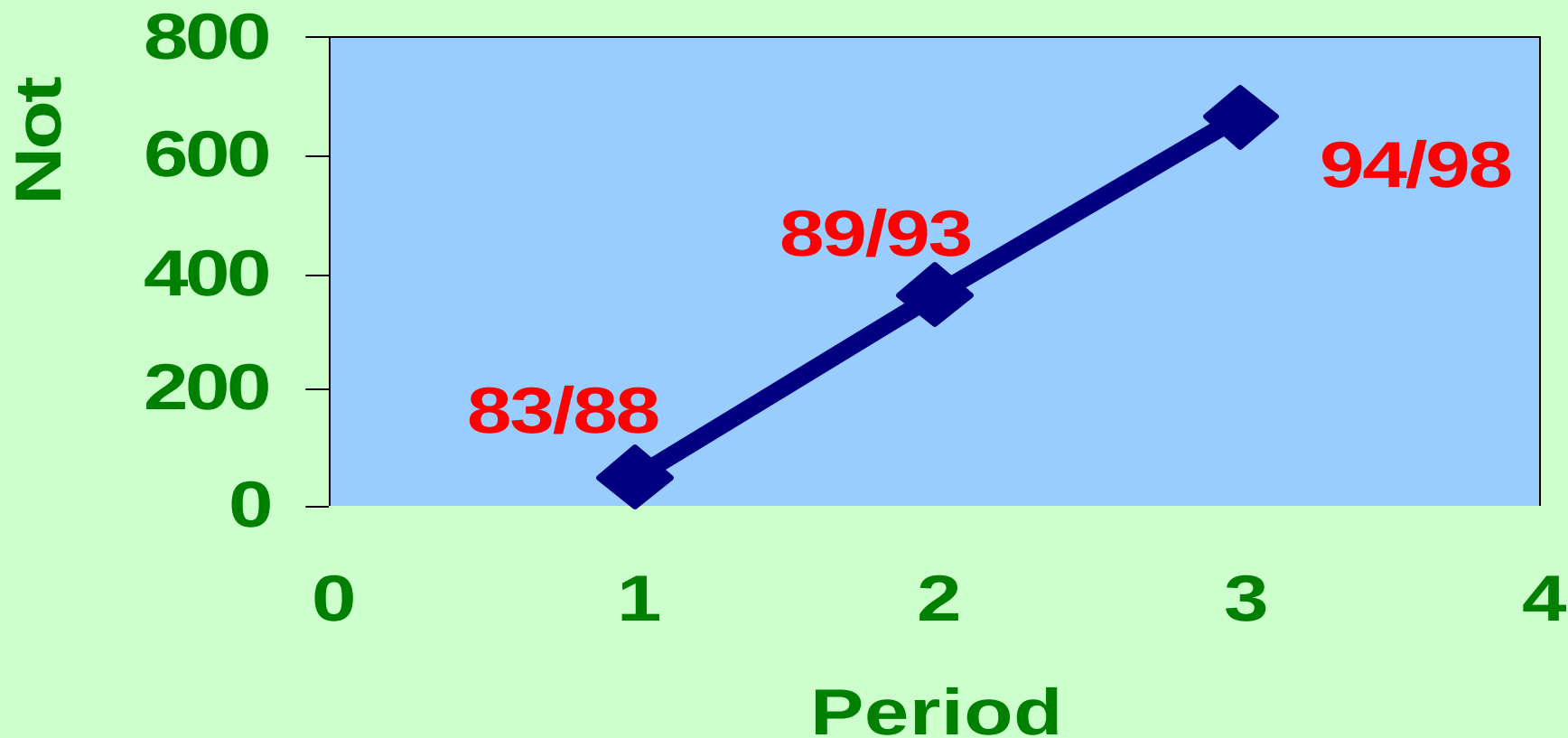
BIRD STRIKE NOTIFICATION - %/PERIOD - ALL THE COUNTRIES



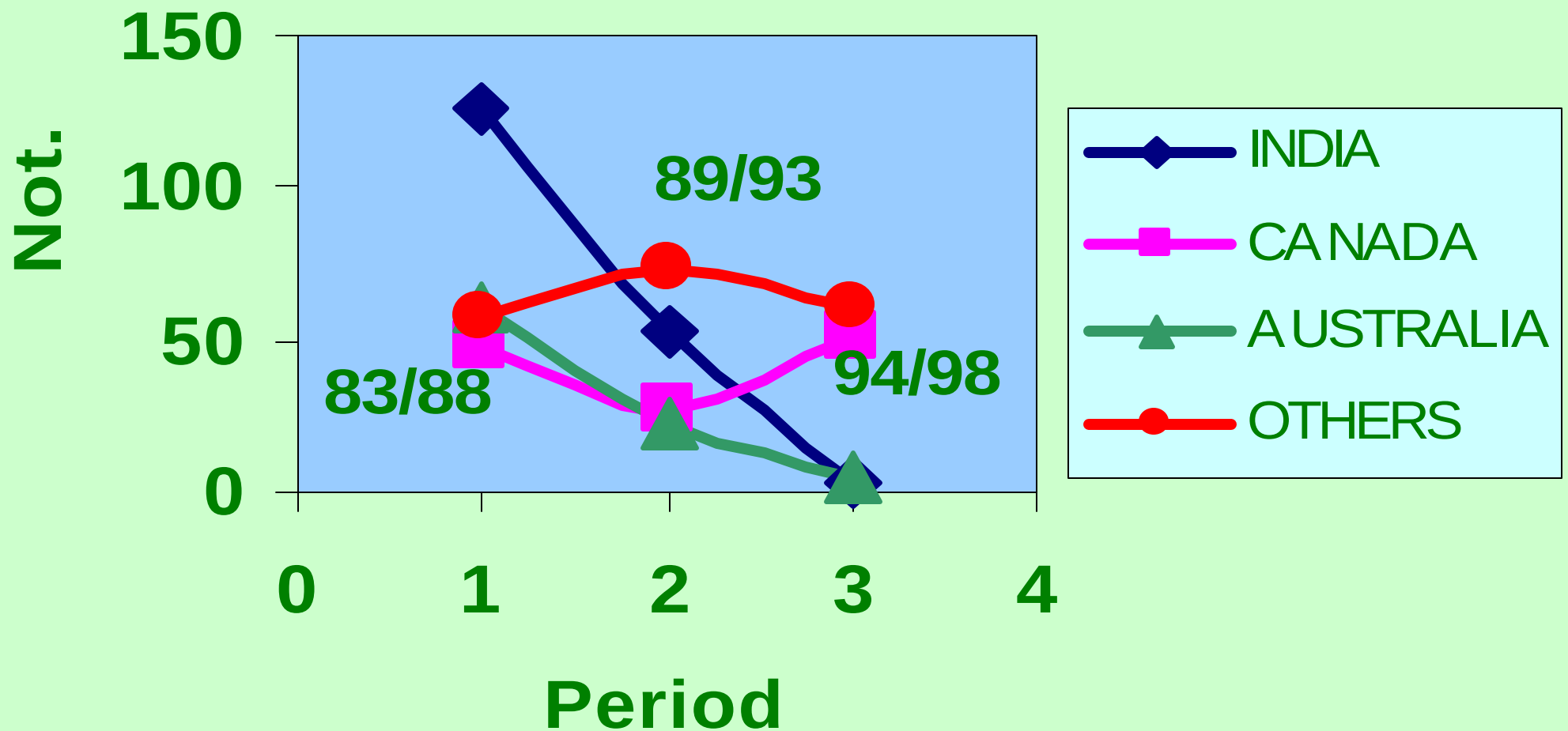
BIRD STRIKE NOTIFICATION (% PER COUNTRIES)



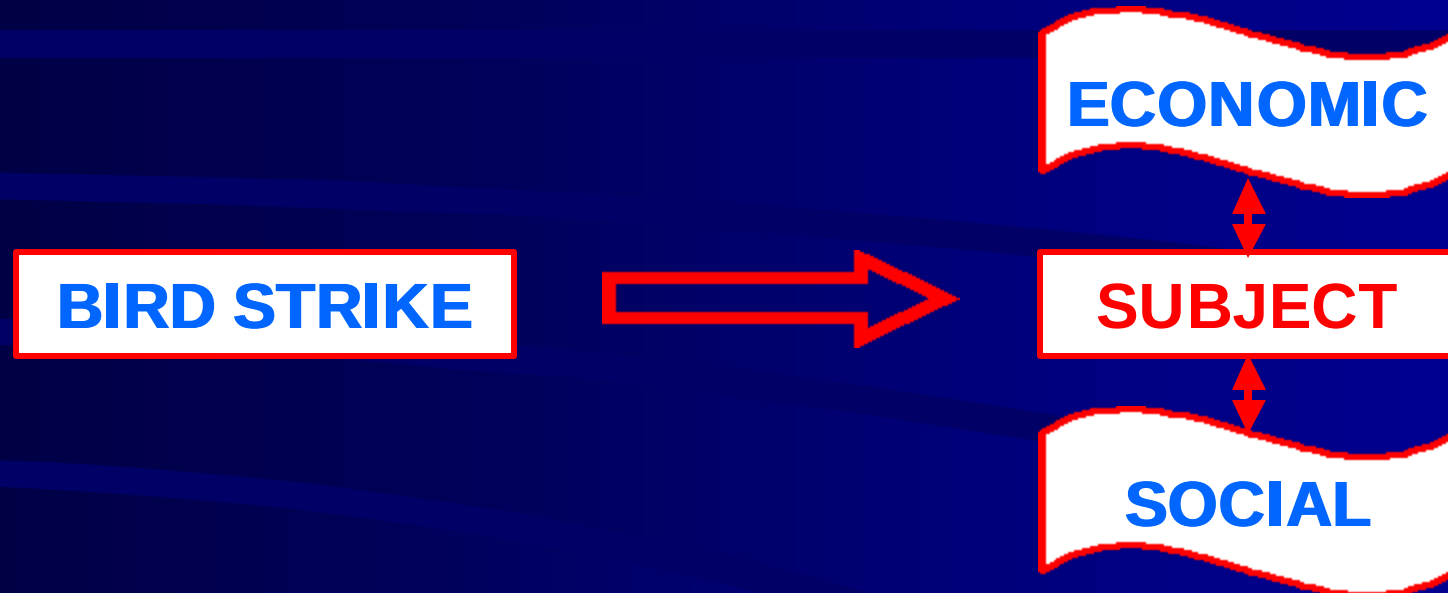
BIRD STRIKES IN THE USA (NOTIFICATION/3 PERIODS)



BIRD STRIKE NOTIFICATION (3 PERIODS)



BEYOND THE MATERIAL AND HUMAN LOSSES



USA **▷** US\$400 MILLION/YEAR

NORTH AMERICA **▷** US\$500 MILLION - US\$1 BILLION/YEAR



BEYOND THE MATERIAL AND HUMAN LOSSES

**GROUPS AFFECTED ▸ AIRLINES,
AIRCRAFT/ENGINE MANUFACTURERS,
AIRPORT OPERATORS, FLIGHT CREWS
AND NATIONAL GOVERNMENTS**

**CONSIDERING DIRECT/INDIRECT
LOSSES FOR THE ENTIRE SOCIETY**

**ASSUMING LOSSES OF US\$2 BILLION
FOR THE ENTIRE WORLD**



BEYOND THE MATERIAL AND HUMAN LOSSES

COST PERUVIAN MEAL (“MENU”) ≈ US\$1.15

2,000,000,000.00

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US\$1.15

=

1,739,130,435 MEALS

1,739,130,435

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365 X 2

=

2,832,370 PERSONS

≈ 10 % PERUVIAN POPULATION



ICAO RECOMMENDATIONS

BASIC DOCUMENT ⇒ ANNEX 14

APT. SERV. MAN., PART 3 ⇒ BIRD CONTROL AND REDUCTION

MANUAL ON THE ICAO BIRD STRIKE INFORM. SYSTEM (IBIS)

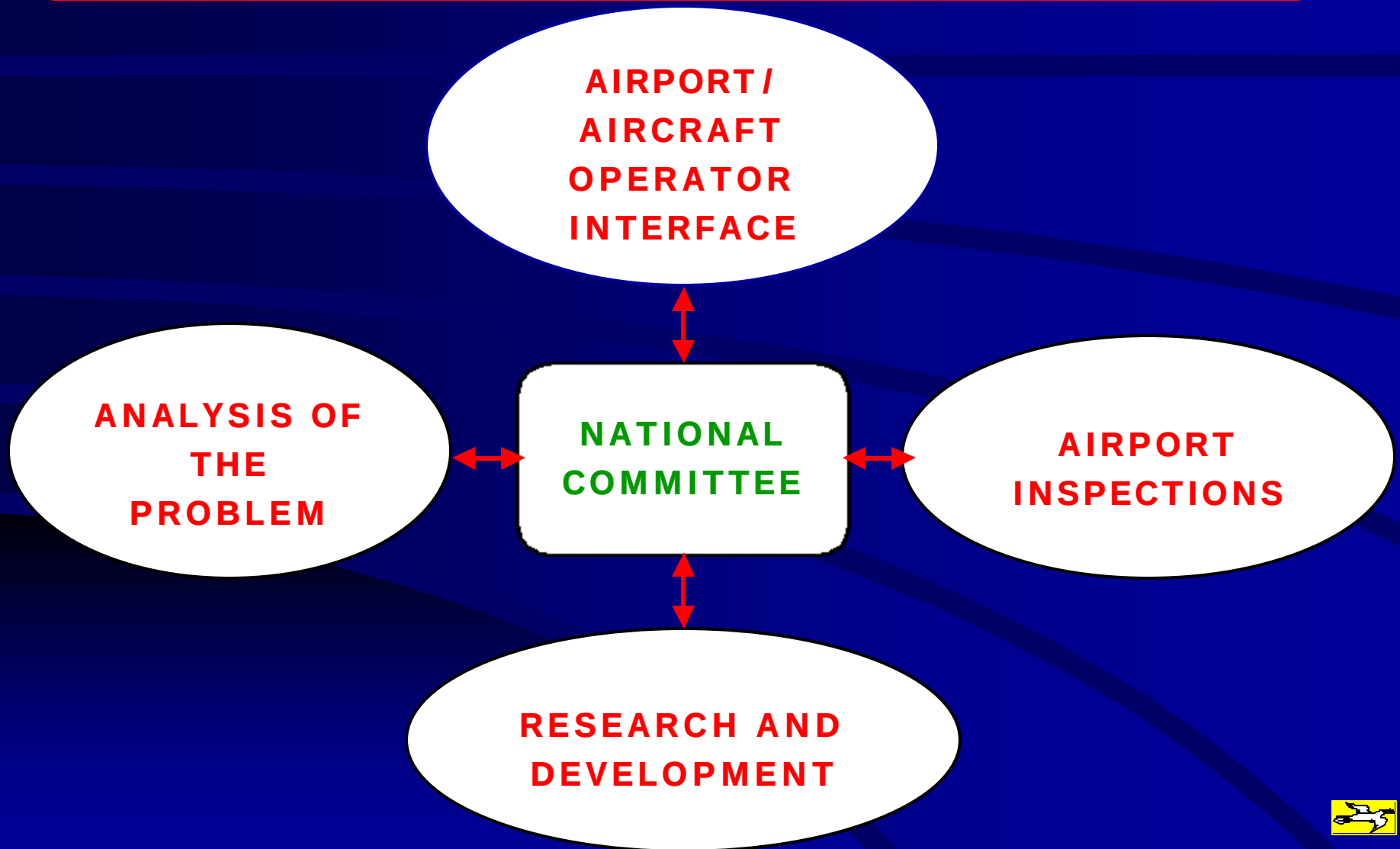
APT. PLANNING MANUAL, PART 1 ⇒ “MASTER PLANNING”

APT. PLAN. MAN., PART 2 ⇒ “LAND USE/ENVIR. CONTROL”



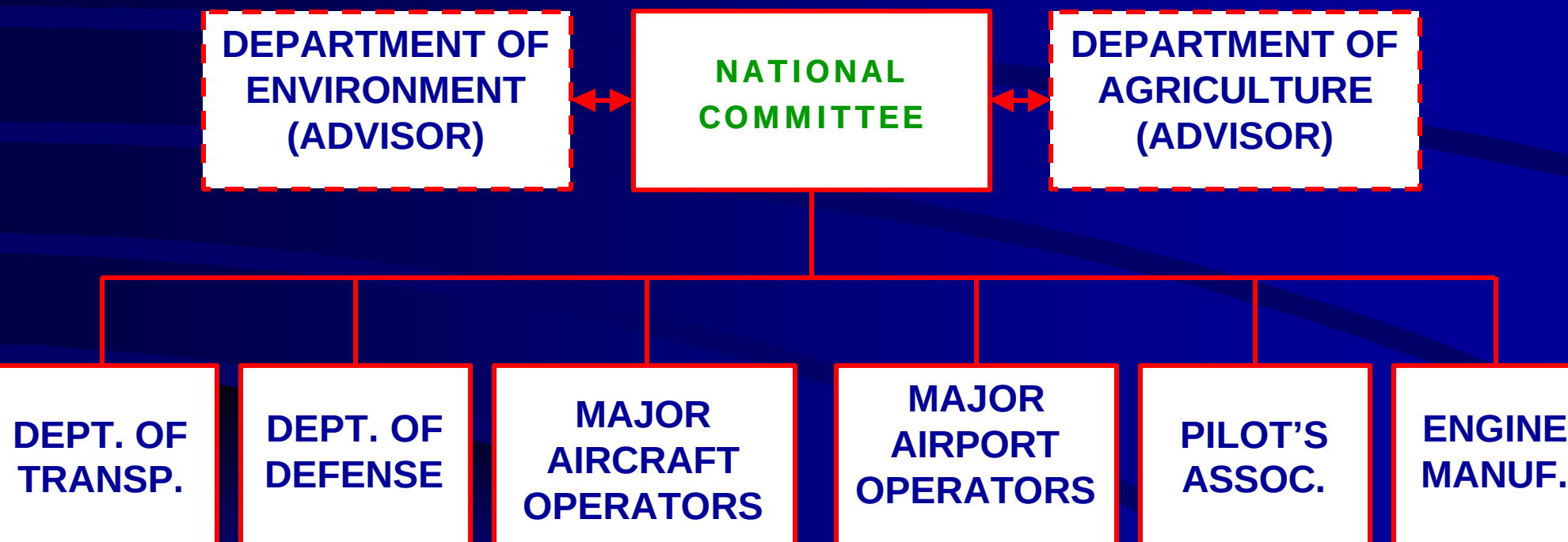
RECOM. - DOC 9137-AN/898 "BIRD CONT./RED."

NATIONAL COMMITTEE AS A FOCAL POINT



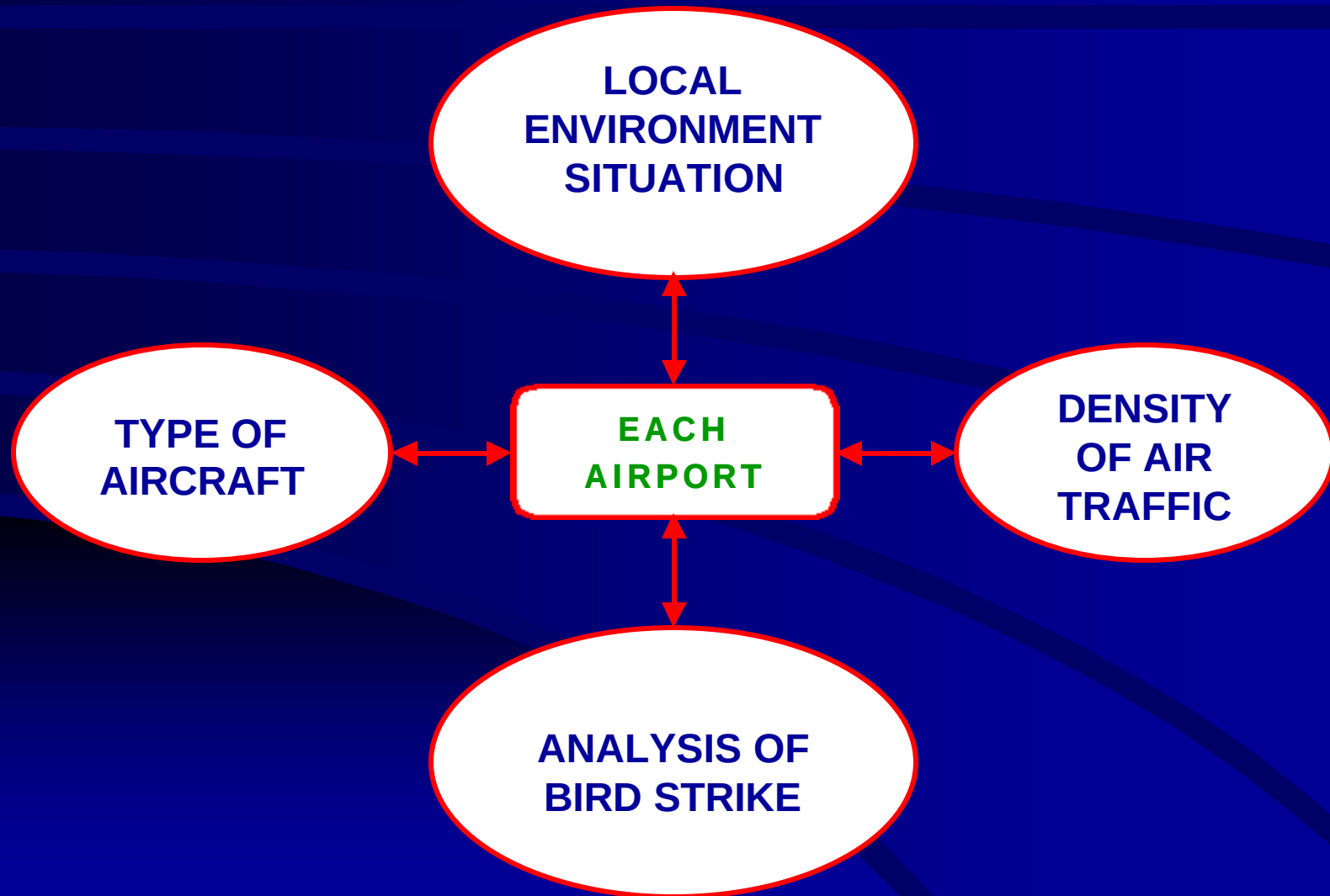
RECOM. - DOC 9137-AN/898 "BIRD CONT./RED."

BASIC STRUCTURE OF A NATIONAL COMMITTEE



RECOM. - DOC 9137-AN/898 "BIRD CONT./RED."

ASPECTS TO BE CONSIDERED IN THE CREATION OF A COMMITTEE



ROLES AND RESPONSIBILITIES OF A CONTROL PROGRAMME



RESPONSIBILITY AT EACH LEVEL

HEADQUARTERS

POLICIES, STANDARDS, GUIDELINES

REGIONAL OFFICES

INTERMEDIARY HQT/APT PERSONNEL

EACH AIRPORT

**APPOINT: WILDLIFE COORDINATOR,
BIRD HAZARD CONTROL OFFICER,
WILDLIFE CONTROL COMMITTEE**

WILDLIFE CONTROL

**AIRPORT MAINTENANCE, AIR TRAFFIC/
FLIGHT/RESCUE AND FIREFIGHTING
SERVICES, SECURITY, DUTY MANAGERS,
MARKETING, PLANNING, FINANCE, ETC**



COMMITTEES IN THE SOUTH AMERICAN REGION

ARGENTINA

COMMANDER OF
AIR REGIONAL
AREAS

STAFF

PRESIDENT

SECRETARY

MEMBERS



COMMITTEES IN THE SOUTH AMERICAN REGION

BRAZIL

SINCE 1971 ⇒ INFORMATION ON AERONAUTICAL INC./ACC.

AVIAN HAZARD CONTROL PROGRAM ⇒ CREATED IN 1991

OVER 82 % OF THE OCCURRENCES ⇒ AT/NEAR THE AIRPORTS

TRANSBRASIL (1997/2000)



54 STIKES WITH DAMAGE

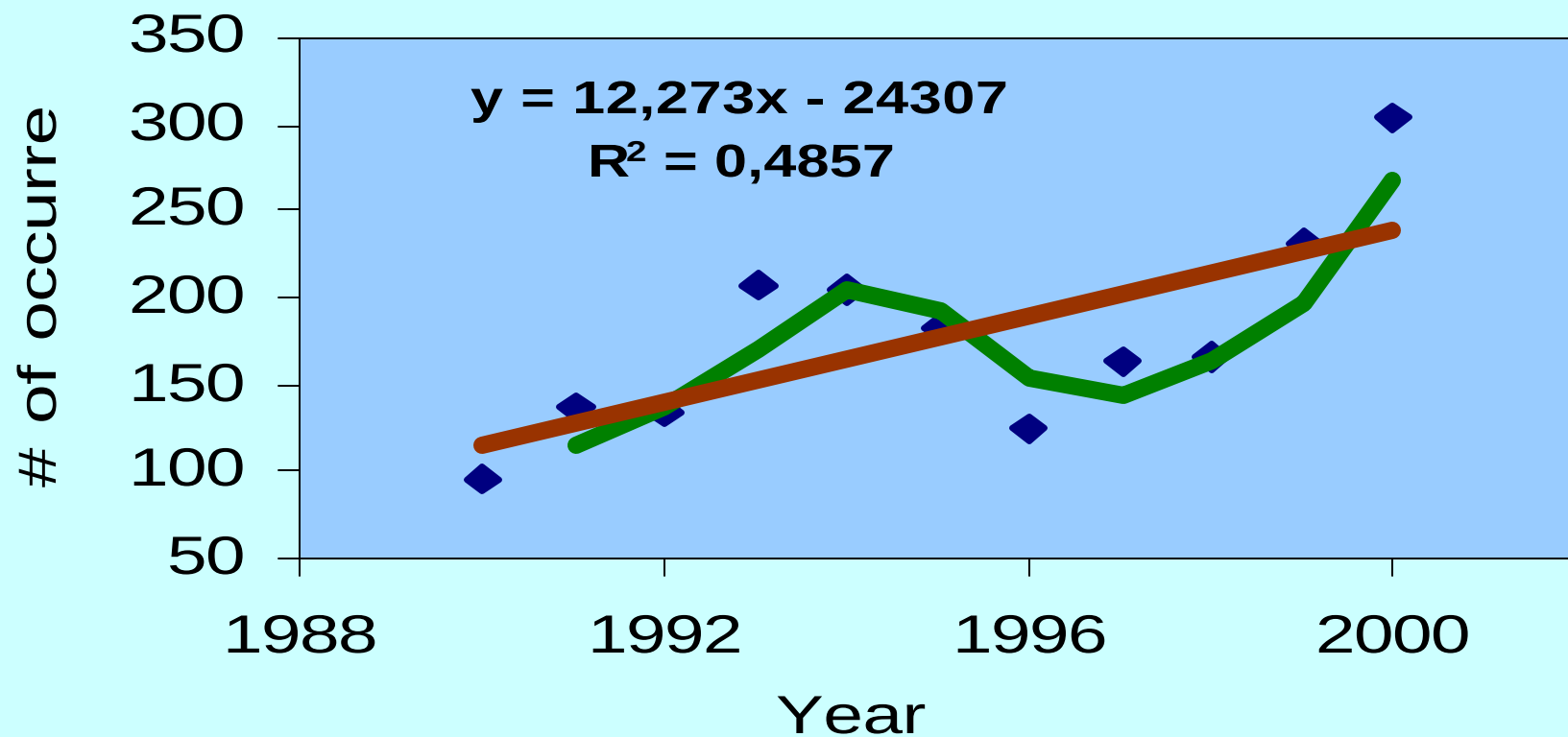
AVERAGE/ACFT ⇒ US\$217,934.00

B737-400 ⇒ US\$1,999,454.45



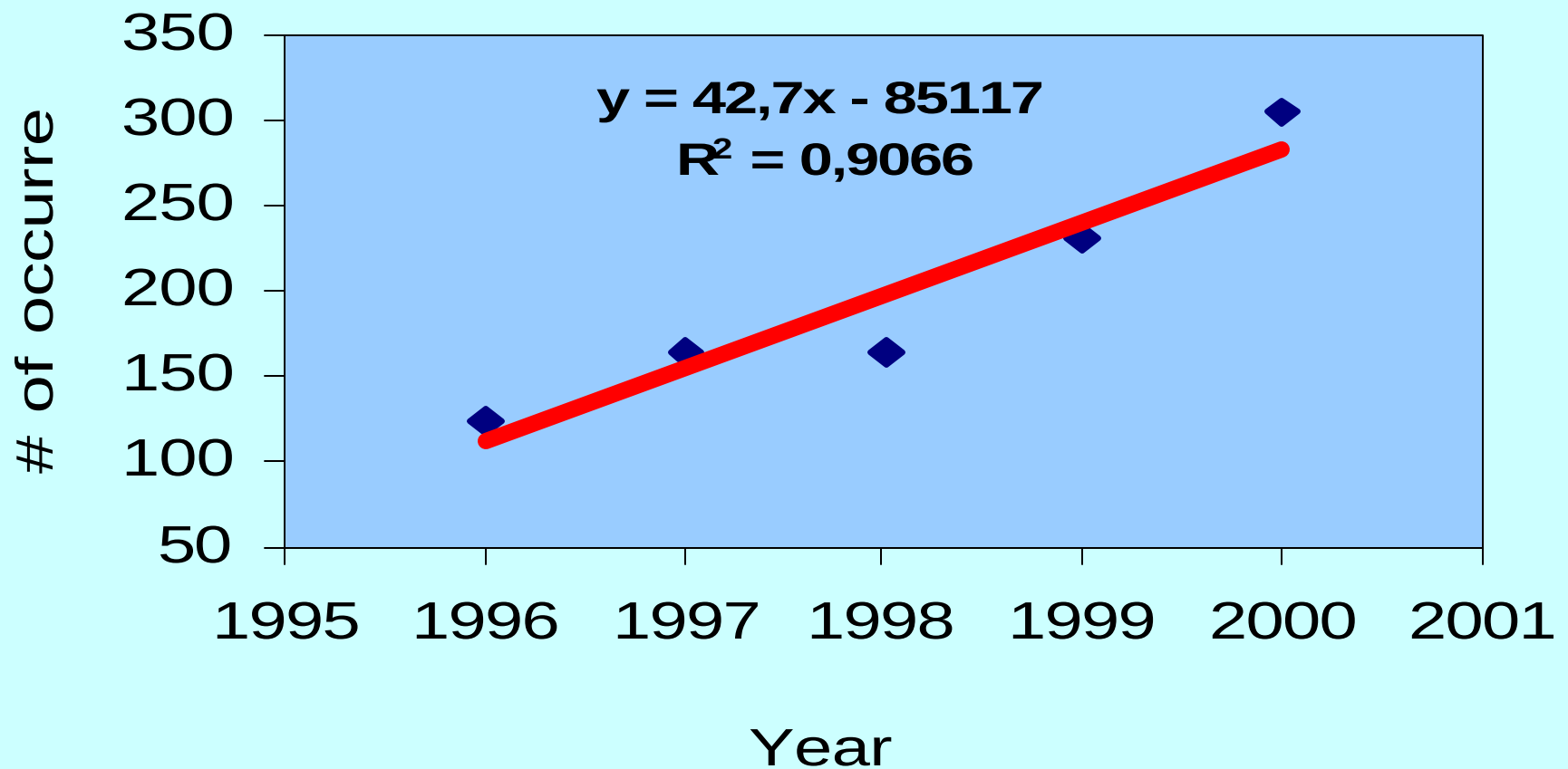
COMMITTEES IN THE SOUTH AMERICAN REGION

Bird Strike - Brazil - 1990 to 2000



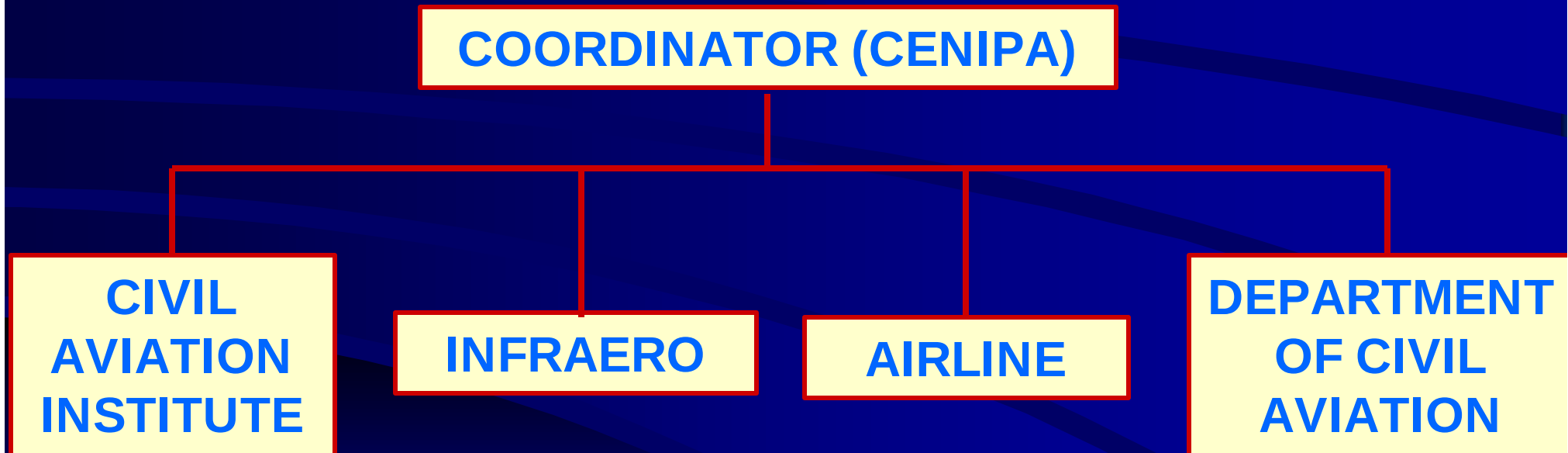
COMMITTEES IN THE SOUTH AMERICAN REGION

Bird Strike - Brazil - 1996 to 2000



COMMITTEES IN THE SOUTH AMERICAN REGION

BRAZILIAN AVIAN CONTROL PROGRAM - ACTUAL STRUCTURE



COMMITTEES IN THE SOUTH AMERICAN REGION

PANAMA

COMBINED EFFORT $\Rightarrow$ ICAO COOP. MISSION & CAA PANAMA



NAT. COMM. FOR PREVENTION OF BIRD HAZARD $\Rightarrow$ 30 JUN 96

PERMANENT COMMISSION

CAA
EMPLOYEES

CONSULTANT COMMISSION

PUBLIC AGENCIES & NON-
GOVERNMENTAL ORGANIZATIONS

COMMITTEES IN THE SOUTH AMERICAN REGION

PUBLIC AGENCIES

CAA

MILIT.
AVIAT.

HEALTH
DEPT.

NAT. INST.
NAT. RESO.

EDUCAT.
DEPT.

LOCAL
AUTH.

NON-GOV. ORGANIZATIONS

ICAO

AUDUBON
SOC. OF
PANAMA

NAT. SOC. OF
NATURE CONS.

COM. PIL.
ASSOC. OF
PANAMA

AIRLINE
ASSOC. OF
PANAMA

COMMITTEES IN THE SOUTH AMERICAN REGION

URUGUAY

NATIONAL COMMITTEE ON PREVENTION OF BIRD HAZARD



CREATED IN NOVEMBER OF 1998



CONCLUSIONS

STATES ⇔ NO ATTENTION TO NOTIF./INFORM.

SEMINAR (1993) ⇒ NAT./REG. COM. ⇒ NOT ACCOMPLISHED

1983-1998 ⇒ BIRD STRIKES USA ↑ OTHER COUNTRIES ↓

ANNUAL LOSSES ⇒ COULD FEED 10 % PERUV. POPULATION

ICAO ⇒ TECH. PUBLIC., IBIS SYSTEM & TRAINING

COMMITTEES ⇒ ARGENTINA, BRAZIL, PANAMA, URUGUAY



B ETTER

I NFORMATION

R EDUCES

D ANGER!!!

S AFETY

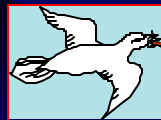
T RULY

R EQUIRES

I NFORMATION

K EEPING

E COSYSTEMS!!!



THANK YOU!

