



Aeromedical Evacuation System of RTAF in HADR



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Aeromedical Evacuation System of RTAF in HADR



Scope

1. Introduction

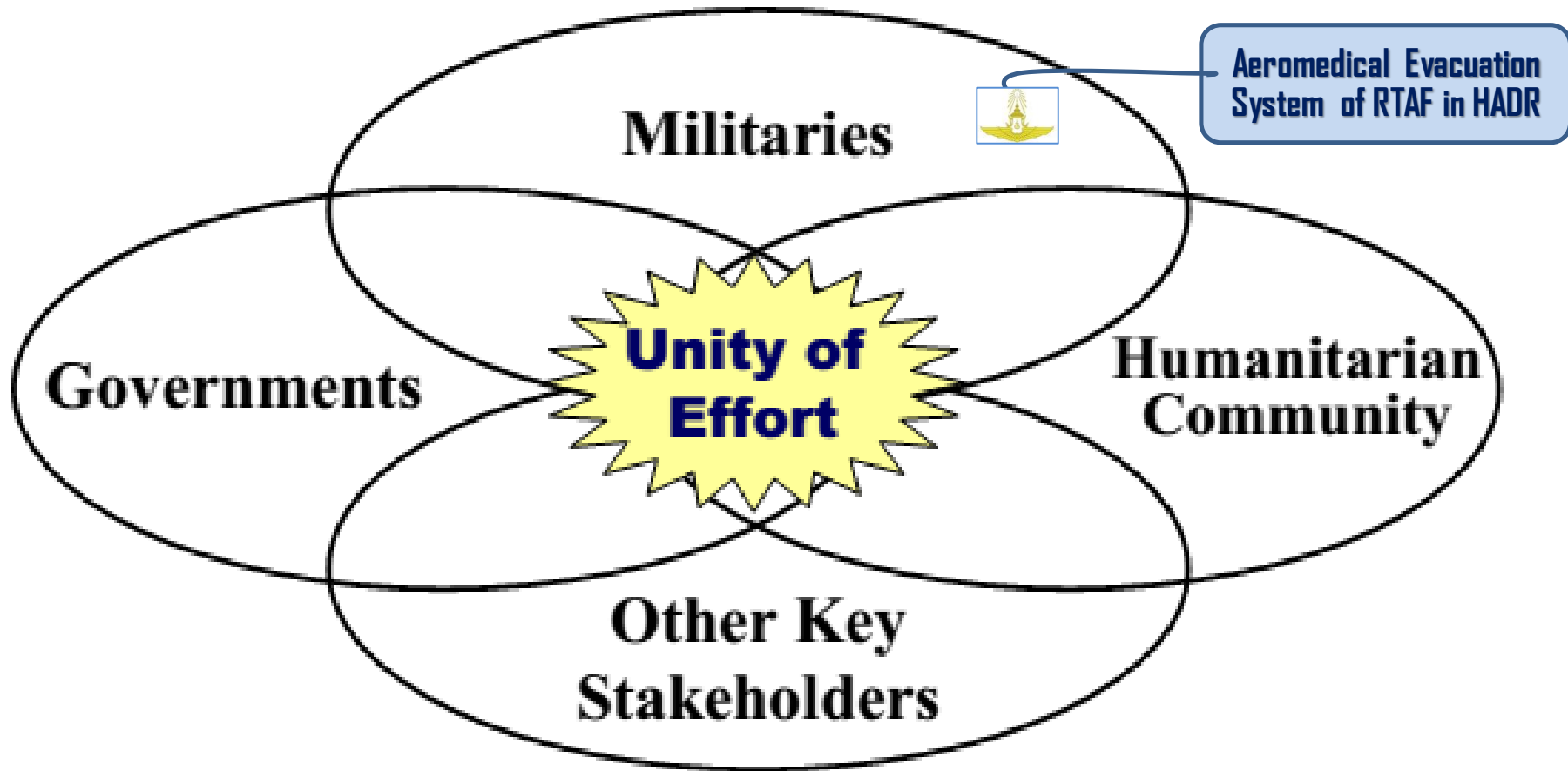
2. Composition

3. Aeromedical Evacuation Operation

4. Experience of AE operation in HADR



Humanitarian Assistance and Disaster Relief (HADR) operation



“Inclusive, Cooperative, and Coordinated Environment”



Integrated Operations

Aeromedical Evacuation System of RTAF in HADR

✚ Disasters

- Destroy our property, and harm our populations.
- Incapacitate hospitals and definitive care facilities.

✚ Aeromedical Evacuation and Disaster response:

- ↓ Disability & save lives
- The good capability of moving large numbers of complex patients over long distances in short period of time.

Aeromedical Evacuation System of RTAF in HADR

🔑 AES and HADR operation

- The time saving factor
- Patient selection and preparation
:- Key elements in safe patient movement by air asset.
- Stabilized patients movement
(**A**irway protected, **B**reathing, and **C**irculation controlled)

Aeromedical Evacuation System of RTAF in HADR

AES and HADR operation

- Specialized Airworthiness medical equipment
- Well-trained Aeromedical evacuation crews for
 - ✓ Clearance Patient for AE ,
 - ✓ Inflight MX
 - ✓ Specific aspects
 - The effects of altitude(Stress of flight.
 - Physical characteristics and limitation of the aircraft environment.
 - Psychological effects of flight.



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Aeromedical Evacuation System of RTAF in HADR

Compositions of Aeromedical Evacuation System

1. AECC = Aeromedical Evacuation Control Center

2. AE CREW = Aeromedical Evacuation Crew

3. MASF = Mobile Aeromedical Staging Facility

4. AELT = Aeromedical Evacuation Liaison Team

Aeromedical Evacuation System of RTAF in HADR

I. AECC :- Aeromedical Evacuation Control Center

Command and control element of the AES.

**Coordinating airlift,
Validating patient requirements.**

Aircrew management

**Ensuring adequate logistical
support**

**Coordinate and supervise
all AE missions.**

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Aeromedical Evacuation System of RTAF in HADR

II. AE Crew :- Aeromedical Evacuation Crew

- Consists of experts in aeromedical transports
 - 1 Flight surgeon
 - 1 Flight nurse
 - 2 AeroMedical Technicians.
- Provide in-flight patient care on any aircrafts.

Aeromedical Evacuation System of RTAF in HADR

II. AE Crew :- Aeromedical Evacuation Crew



Aeromedical Evacuation System of RTAF in HADR

II. AE Crew :- Aeromedical Evacuation Crew

- **Knowledge:**
 - ✓ **Aviation Physiology, Flight Nurse**
 - ✓ **Clinical: BLS, ACLS, ATLS**
 - ✓ **Aeromedical evacuation system**
- **Team work :- CRM**
- **Safety-themselves-patients**
- **Self-imposed stress**
 - **fit to fly (IAM SAFE)**

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Mobile Aeromedical Staging Facility (MASF)



1970



2005



2018

Aeromedical Evacuation System of RTAF in HADR

Mobile aeromedical staging facilities (MASF)

- Air transportable holding facilities.

- Equipped and staffed to receive patients, sustain life, and administratively process patients who are to be moved in the AES.



Aeromedical Evacuation System of RTAF in HADR

III. MASF = Mobile Aeromedical Staging Facility

■ MASF team (Mobile Aeromedical Staging Facility Team)

■ PFA team (Psychological First Aids Team)



MASF



MASF team



PFA team



MASF UNIT AND MASF TEAM

MASF UNIT AND MASF TEAM



MASF team :-Assess, stabilize, stage for future airlift.

MASF UNIT AND PFA TEAM



E A S E

Psychological First Aid : EASE

PFA team :-Providing basic psychological support to victims in Disaster/traumatic events

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Aeromedical Evacuation System of RTAF in HADR

IV. AELT = Aeromedical Evacuation Liaison Team

- Insure a smooth patient flow into the AES.
- Provide initial clinical consultation and radio communication to the AECC and the MASF.
- Relay patient requirements both in number and specific care needs to the AECC.
- Acting as the flight clinical co-ordinator.

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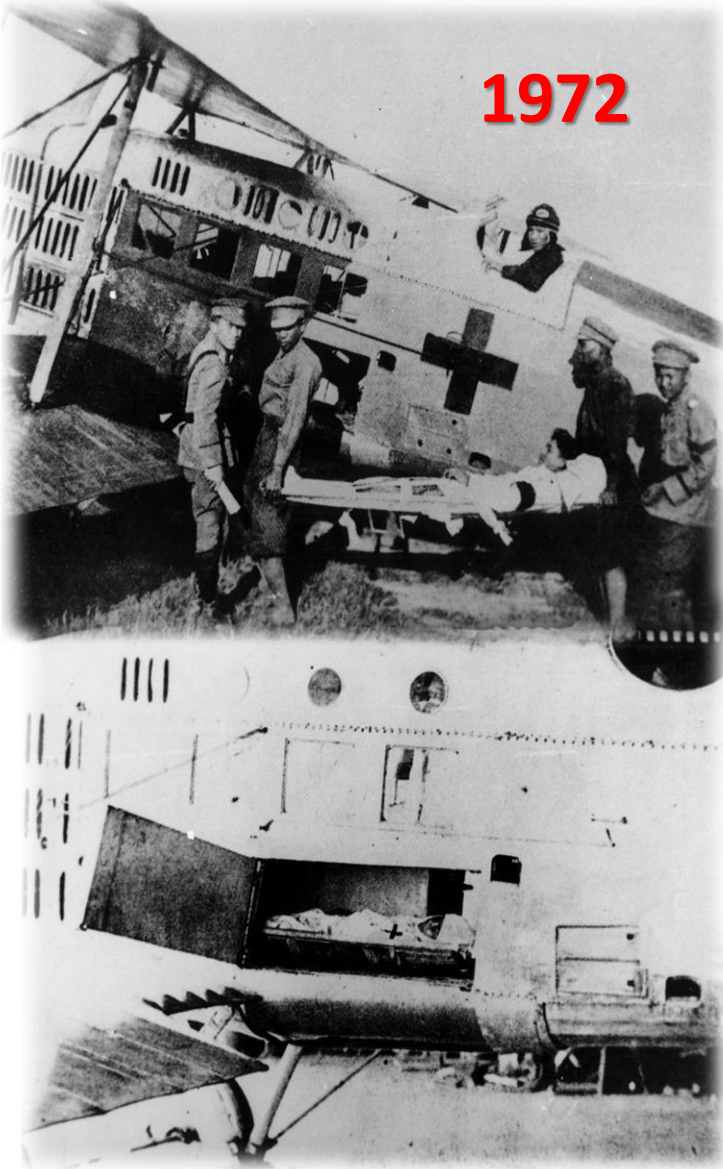


AEROMEDICAL EVACUATION OPERATION



Aeromedical Evacuation System in RTAF

1972



2018



Aeromedical Evacuation System in RTAF

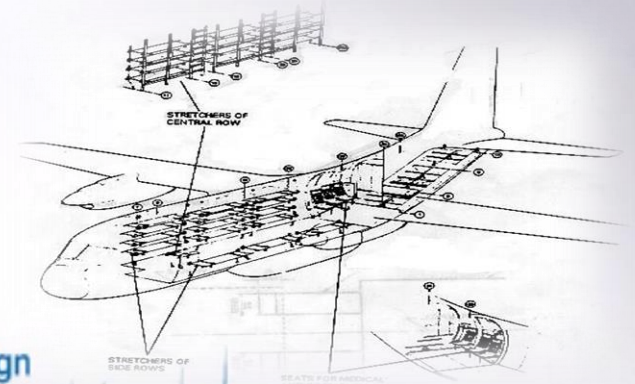
□ The C-130 Hercules

C-130

- First flight in 1954
- Easy to load

High-wing design

Roll-on, roll-off loading ramp



Aeromedical Evacuation System in RTAF

Commander-in-Chief RTAF

Institute of
Aviation Medicine

Air Mobility Command
Air Operation Control

Aeromedical
Evacuation Center

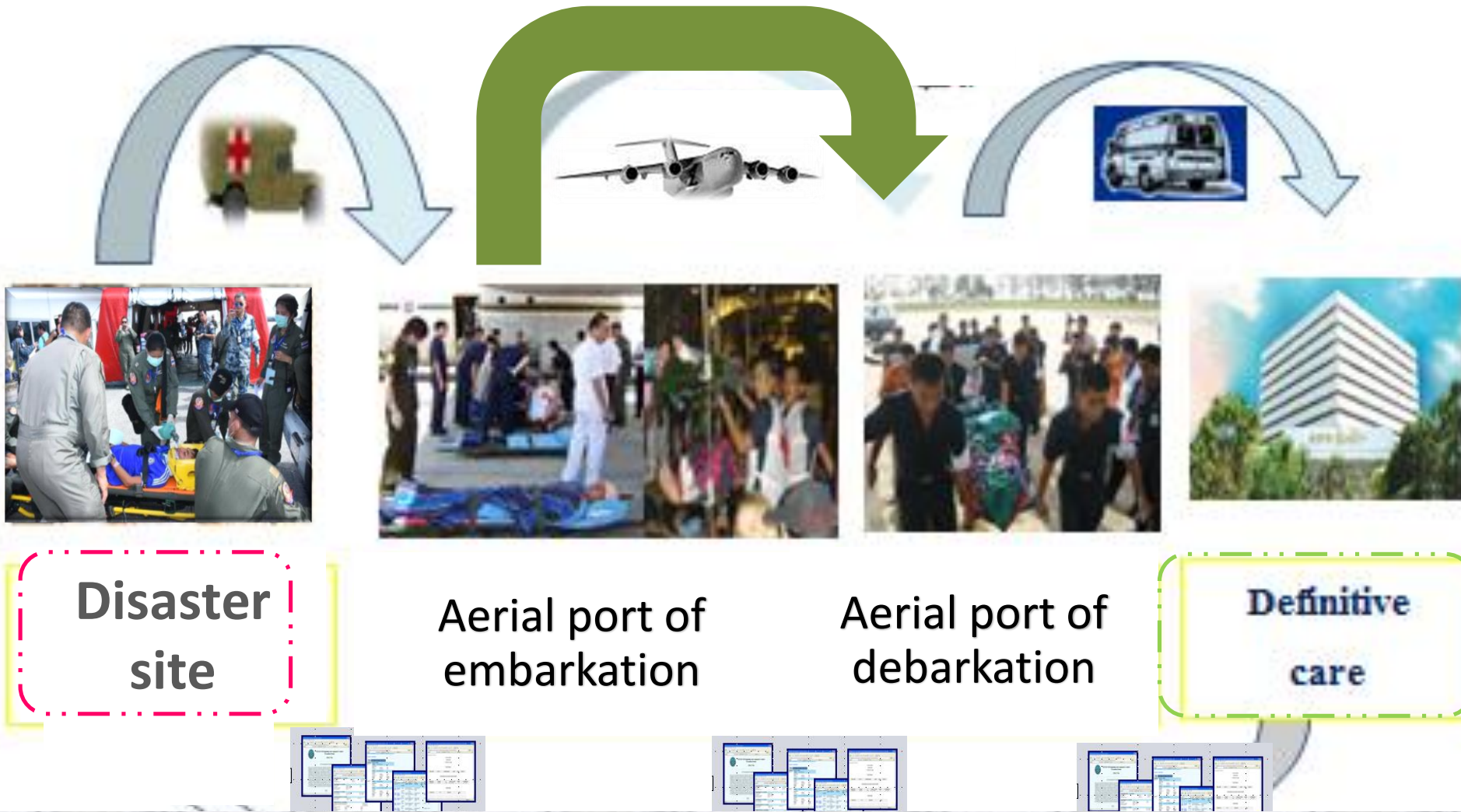
Squadron
air lift

Aeromedical evacuation control

Aircraft control



Aeromedical Evacuation System in RTAF

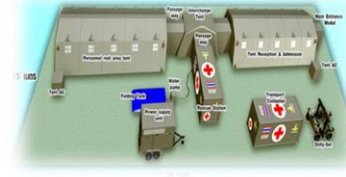


All the treatments have to well documented since entering the AES, during the flight and confirmed received by the destination hospital.

Aeromedical Evacuation System in RTAF

Pre-flight

- Mission planning, Positioning plan
- Preflight assessment: Patient History and Physical Assessment (medical clearance)
- Converting the aircraft
- Enplaning and deplaning
- Check list
- Aeromedical airlift briefing



In-flight

- Safety Alertness
- Inflight Mx.
- AE Document
- Unusual Occurrences Inflight

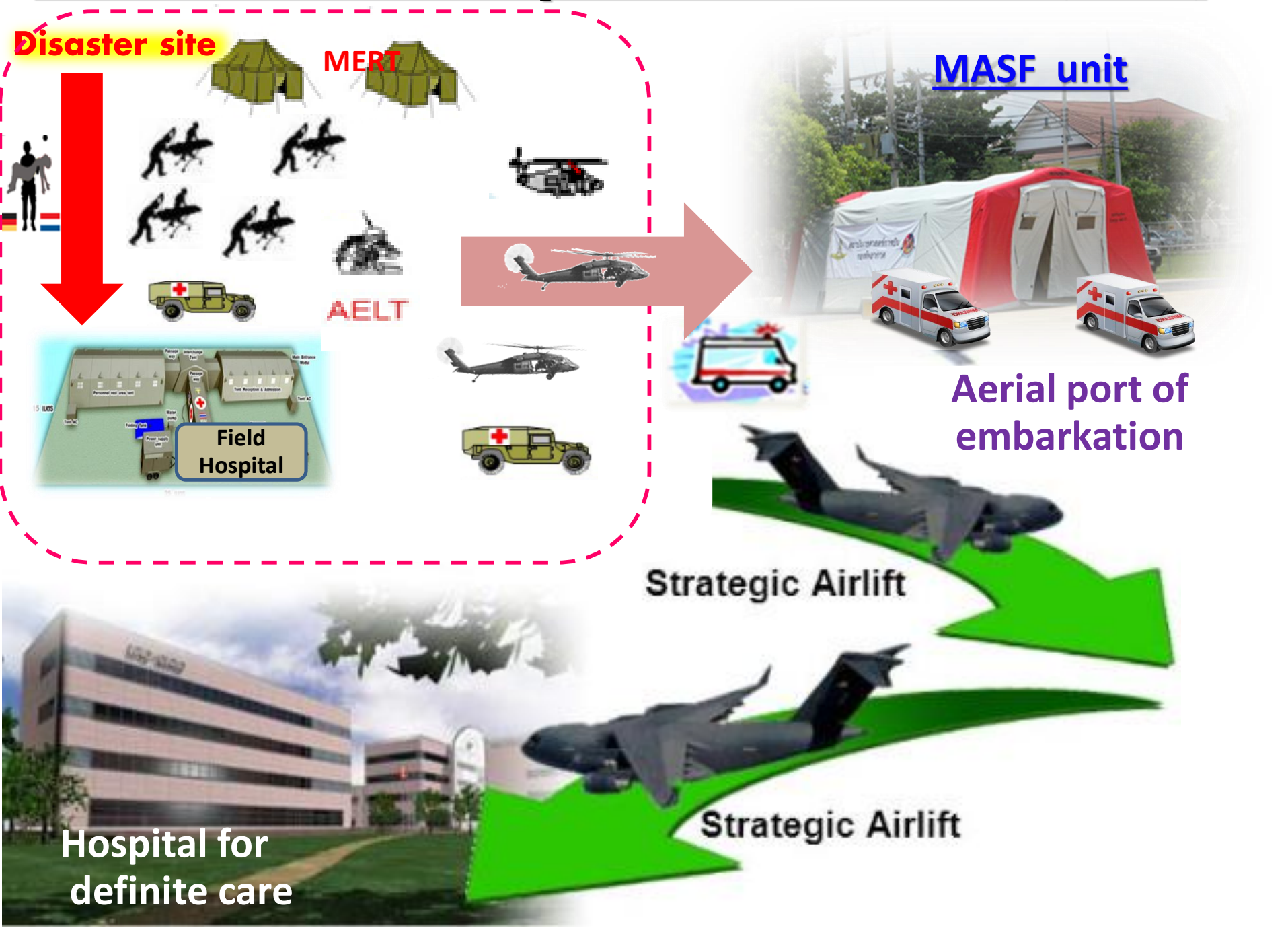


Post-Flight

- Coordination and communication
- Report
- Supplies and Equipment



Line of co-ordination of air operation and medical services (HADR)



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Experience of AE operation in HADR

- 1921:Cholera Outbreak in Ubon Ratchathani;Thailand.
- 2004: Tsunami in the southern part of Thailand.
- 2006: Northern Thailand's big botulism outbreak.
- 2011:Flood in Bangkok
- 2016:The ASEAN Defence Ministers' Meeting (ADMM)-Plus Military Medicine (MM) and Humanitarian Assistance and Disaster Relief (HADR) Exercise
- 2018:Subject Matter Expert Exchange:USAF and RTAF



Aeromedical Evacuation System in RTAF

RTAF's AES future planning:

- Full system rehearsal both deploy and operate MASF at RTAF base/ non RTAF base.
- Finding out and solving the problem and difficulty in the future operation.



Aeromedical Evacuation System in RTAF

RTAF's AES future planning:

- Full system rehearsal both deploy and operate MASF at ASEAN base
- Co-ordinate with other countries for HADR activities.
- Establish International Standard Operation Procedures (SOP) Of AE in HADR





Thank you for your attention

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The International Congress of Aviation and Space Medicine



ICASM

2018

BANGKOK

