Capability Measurement to Cope with Challenges

Dr. Pham Viet Dzung
Director General
Vietnam Air Traffic Management Corporation

Shaping Asia Pacific ATM - Global Vision, Regional Action

4 - 6 MAY 2016
QUEENSTOWN, NEW ZEALAND

CANSO ASIA PACIFIC CONFERENCE
Challenges for regional ANSPs
Viet Nam’s situation and actions
Propose for regional solutions
Challenges for regional ANSPs

Shaping Asia Pacific ATM - Global Vision, Regional Action

4 - 6 MAY 2016
QUEENSTOWN, NEW ZEALAND

CANSO ASIA PACIFIC CONFERENCE
1. Air traffic volume increase

- Increasing demand for travelling and trading by air, specially in the APAC region:

  **1990s:** 73% of the world air transport handled by Europe and North America airlines;

  **2034:** expected to be 38% due to the increase in market share for APAC and Middle East region airlines
Challenges for regional ANSPs

2. Military operation
   - Flight training activities;
   - Restricted and prohibited area for military activities...
3. New challenge from untraditional airspace users:

- Unmanned Aerial Vehicles (UAV), remotely piloted aircraft systems (RPAS), sounding balloons:
  - Operation in **very small airspace** for different purposes;
  - Not operating in separate airspace but **unpredictably** under, inside, above and even cutting through different kinds of controlled or uncontrolled airspaces.
Challenges for regional ANSPs

3. New challenge from untraditional airspace users:
   - Very light jets (VLJ):
     - Operating in low flight levels with unsustainable air routes to serve the travelling demand of a minority of rich people.
     - The impact of this model is expected to increase more and more due to the development in the social – economic wealth
   - Latent risks in safety management.
   - Questions: how to maintain separation of those with other traffics while their dimensions and performances vary in speed and operational capability? And, how to limit and avoid cases that such means are deployed for terrorist purposes.
Viet Nam’s situation and actions

Shaping Asia Pacific ATM - Global Vision, Regional Action

4 - 6 MAY 2016
QUEENSTOWN, NEW ZEALAND

CANSO ASIA PACIFIC CONFERENCE
Viet Nam’s situation

- The need of international networking, deeply and widely, in all areas including aviation.
- Increase of air traffic flow with more complicated and diversified operational nature.
- From 2011 to 2015: Air traffic volume of Viet Nam has been growing constantly by 02 digit rates.
- 2015: 639,945 flights; 45% are landing/taking-off and 55% are over flights.
Air traffic volume in Viet Nam’s FIRs 2011-2015
Viet Nam’s actions

Viet Nam has been deploying **synchronous solutions** in order to meet the real demand, improve the **handling ability** of the airspace, airspace parts and ATC facilities for ANS provision in the two FIRs of Viet Nam:

- Modifying, amending, introducing new ATS routes, flight procedures;
- Optimizing the airspace, resectorizing, reallocating responsibilities of the ATC facilities to regulate and reallocate air traffic flows in the optimum way.

**Target:** to utilize airspace resources efficiently, to assure the safety, to reduce traffic jam and to limit the air pollution.
Propose for regional solutions

Shaping Asia Pacific ATM - Global Vision, Regional Action

4 - 6 MAY 2016
QUEENSTOWN, NEW ZEALAND

CANSO ASIA PACIFIC CONFERENCE
Propose for regional solutions

- Catch up, follow and forecast trends of flight operations

**Regional solutions needed**: approach to manage and evaluate capability to enable adjusting, maximizing the capability of the ATS system in each country and in the whole region.

- ICAO Doc 9971, documents supported by AATIP project (EU) were set up through practices of developed countries in EU, US so they are not the best base for countries in the APAC region to define and analyse its capability maximization accurately.

- Asia Pacific ANSPs need to coordinate for methods to evaluate and measure and optimize capability.
Propose for regional solutions

Collecting, Searching and Fixing:

• Collect flight data from different resources;
• Analyse, evaluate data;
• Define problems, classify them to understand their nature.

➢ Develop measures, orientation and plans for the air traffic management in the region in a proactive way to go ahead and resolve the problems before they become actual major challenges that can have negative impact on the safety, efficiency and sustainability of the air traffic operation.
Propose for regional solutions

If we can not measure, we can not manage.
If we can measure, we can improve.
Thank you

Shaping Asia Pacific ATM - Global Vision, Regional Action

4 - 6 MAY 2016
QUEENSTOWN, NEW ZEALAND

CANSO ASIA PACIFIC CONFERENCE