



SINGAPORE AVIATION ACADEMY

A Government Perspective of Employee Training – Singapore's Perspective

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Maintenance Conference

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Purpose of Presentation

To share the Singapore Government's perspective of employee training in Singapore

Scope

- **Brief introduction to Civil Aviation Authority of Singapore and Singapore Aviation Academy**
- **Aviation world in the years ahead**
 - ❖ the challenges; and
 - ❖ the need for employee training
- **Shared responsibility:**
 - ❖ Philosophy and rationale
 - ❖ SAA's focus
 - ❖ Funding

Introduction



Civil Aviation Authority of Singapore

Enabling opportunities through aviation



TRAINING ARM



S I N G A P O R E
A V I A T I O N
A C A D E M Y

- Government organisation
- Mission – grow a safe, vibrant air hub and civil aviation system, making a key contribution to Singapore's success

- Mission – to provide the highest quality of training, and the sharing of knowledge and experience, for the advancement of international civil aviation

Background of SAA

- Established in 1958
- ICAO RTCE and ICAO ASTC since 2014
- 120,000+ participants from 200+ countries since 1958, about 6000 locals & 2700 internationals/year
- Operational, management and leadership programmes

Background of SAA

- International conferences, seminars and meetings
- More than 140 different programmes annually, with multiple runs for some (about 400 programme-runs a year)
- Not a profit centre

SAA



The Aviation World in the Years Ahead

- Global air transport passengership will double from now to 2030
 - ❖ 3 billion passengers/year in 2014 will grow to >6 billion/year
 - ❖ 30 million aircraft movements/year will grow to 60 million/year
 - ❖ Asia Pacific will add 13K new aircraft, by 2035
 - ❖ Middle East will add 3K new aircraft, by 2035
- 352K new pilots by 2025
- 739K new maintenance personnel by 2025
- 40K new air traffic controllers by 2025

Challenges Ahead

- Need more Air Services Agreements (ASAs) and new air routes
- Need regional agreements, such as ASEAN Single Aviation Market
- Need more airlines serving Singapore – Need to grow existing airport – airport management, emergency services, airport services
- Need more Air Traffic Controllers (ATCOs)

Challenges Ahead

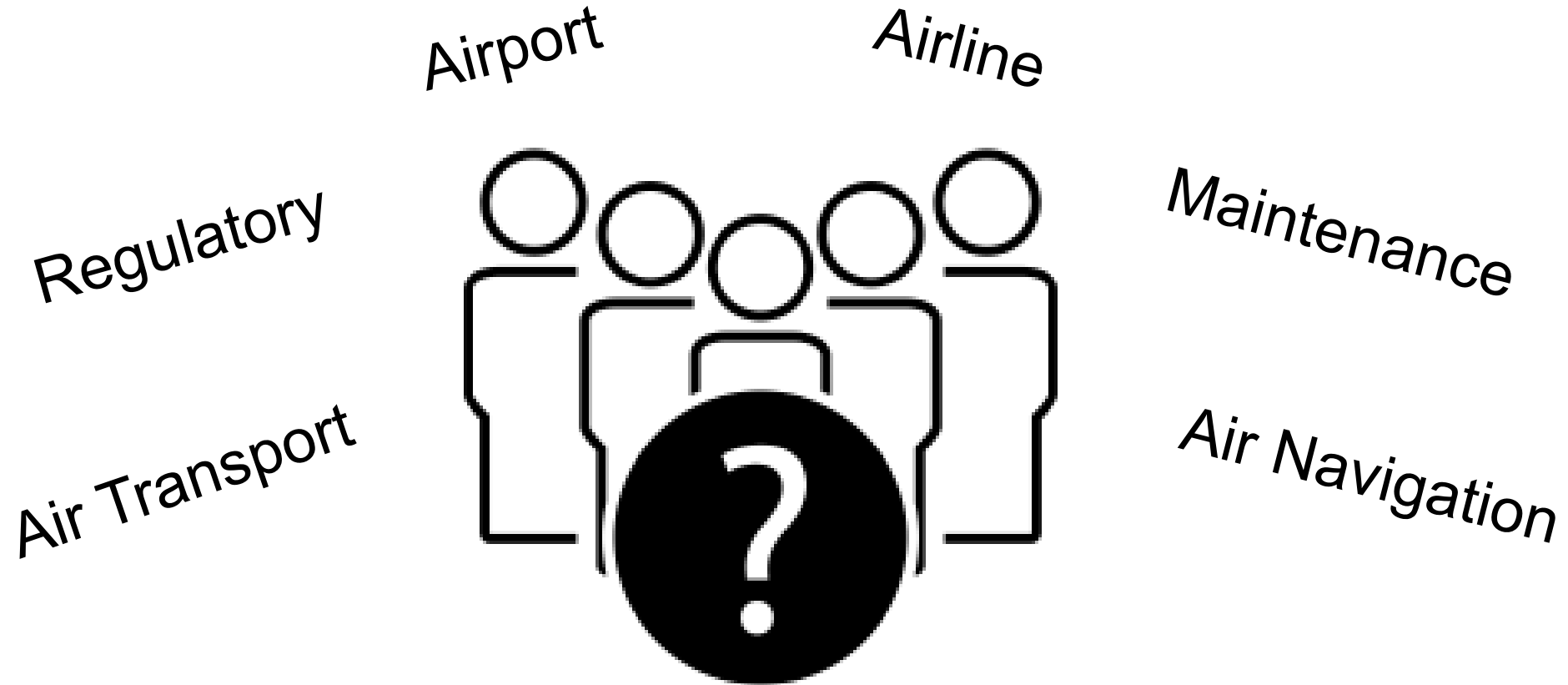
- Need enhanced aviation safety and security
- Need more regulators
- Need more maintenance personnel
- Need sufficient, adequately-trained, manpower with greater productivity

Competing with other attractive industries for talent pool!

Employee Training

- To train people to build, grow, manage and operate new or larger airports, airlines
- To train more ATCOs
- To train engineers as Air Traffic Safety Electronics Personnel (ATSEP)
- To train regulators and auditors (certification of airworthiness and flight operations, and licensing)
- To train people to negotiate ASAs (from regulators, airlines and airports)
- To entice youths to join the aviation industry

Employee Training



Who is responsible?
Government or Industry or...?

Employee Training – a Shared Responsibility

Areas of Training	Training by Government (at SAA)	Training by Industry
Airport	Engineering, Design, Development, Management, Operations (Terminal, Ramp, etc.), Fire fighters, Leadership	Customer service standards, ground handlers.
Airline	Leadership, Management, Finance	Pilots, cabin crew, etc.
Maintenance	Requirements, Standards	MRO
ANSP	Ab initio, Ratings, Airspace Design (PANS-OPS), Watch Managers, etc. and more recently, ATSEP	
CAAs	Regulators, aviation safety personnel, security personnel, accident investigators, etc.	
Air Transport	ASA negotiators	
International	To follow locals as above	
NGAP	Internships	

Employee Training – a Shared Responsibility

Areas of Training	Training by Government (not at SAA)	Training by Industry
Customs	Immigration and Checkpoints Authority	
Non-aviation Business		Retailer-specific training
Aviation Security	Airport Police	Private companies
International	To follow locals as above	
NGAP	Universities and polytechnics	

Employee Training – a Shared Responsibility

Philosophy	Rationale
He who can do the training best should own it	Efficiency and cost-effectiveness
Focus on strengths rather than be jack of all trades	Credibility, branding, reduce cost
Collaboration – product, means, market	Access to curriculum material, lecturers, & participants, => increasing our products/market

Employee Training – a Shared Responsibility

Philosophy	Rationale
Local training priority, but extend to internationals	To grow the local aviation community, to extend expertise and training capacity with internationals, amortise cost
Support international efforts (ICAO, EASA, FSF etc)	Raise overall standards and also reduce imported risks
Training should be timely and cost-effective	

SAA's Focus

- Leveraging on expertise (e.g. continue with operational and management training with strong practitioner-based expertise as well as bring in theoretical underpinnings)
- Bridging gap in training needs (e.g. more senior management and leadership training)
- Improving learning experience (e.g. more blended learning, use of simulators, AR/VR, group-based learning, case studies)

Benefits

- Clear who is responsible for building up training capacity, in which areas. Decision on levels and standards taken on the ground
- Narrower focus allows for greater specialisation

Benefits

- Facilitates the building up of faculty, for:
 - ❖ SAA - Allocation of resources to achieve the desired specialisation and standards
 - ❖ Other government training entities
 - ❖ Industry – driven by market forces
- Funding
 - ❖ Funding for locals (all 3 groups of training providers)
 - ❖ Funding for internationals (for training at SAA)

Funding - locals

	Government	Industry
Government sponsorship through Civil Aviation Authority of Singapore (CAAS)*	Academic upgrading programmes for CAAS staff	Academic upgrading programmes for airport, airline and ground handlers' staff
Government sponsorship through Economic Development Board (EDB)*		Academic upgrading programmes for MROs' potential leaders
SkillsFuture*	Part-time and full-time programmes that satisfy certain criteria to facilitate mid-careerists to join the aviation industry	
Employer	Most programmes at SAA and industry	
Often at no charge	Talks, workshops, conferences	

* For citizens or permanent residents only



Training for internationals - why

- ✓ Singapore/CAAS as a global citizen
- ✓ Enhance trade links and ASA with Singapore
- ✓ Reduce imported risks into Changi Airport
- ✓ Added income to cover costs of SAA open courses
- ✓ One of SAA's twin missions



Training for internationals – how

- ✓ Understanding region specific training needs
- ✓ Gleaning best practices (process, working methodology) to share with participants
- ✓ Creating value in global training arena (e.g. new courses not offered by any providers)
- ✓ Overcoming language barrier (e.g. level of comprehension by non-native speakers)
- ✓ Understanding learning culture (e.g. whether e-learning acceptable to certain regions)
- ✓ Keeping total cost of training (i.e. including air tickets, accommodation, subsistence) affordable
- ✓ Sourcing for funds for fellowships and scholarships



Funding - internationals

❑ Singapore Ministry of Foreign Affairs (MFA)

- ❑ Singapore Cooperation Programme Fellowships

❑ CAAS and MFA

- ❑ Singapore-ICAO Scholarships
- ❑ Singapore-ICAO Fellowships
- ❑ CAAS Programme for young aviation professionals fellowships

Summary

- National focus on the need to provide good training as part of capacity building
- Framework on cutting the pie on who is responsible for what areas of aviation training
- Allocation of funding to facilitate the building up of curriculum and faculty expertise
- Allocation of funding to aid locals to encourage them to join the aviation industry
- Some funding to aid internationals to acquire training, thereby fostering goodwill as well as reducing imported risks

Thank you for your attention!