

| | | | | | | |
|------------------------------------|---|----------------|--|--|--|---|
| TSC Category | Commercial Management | | | | | |
| TSC | Network Planning and Operations | | | | | |
| TSC Description | Establish profitable flight networks for airlines through optimising airline fleet deployment, adjusting frequency of schedules and identifying optimal departure and arrival times | | | | | |
| TSC Proficiency Description | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
| | | | ATP-CMG-3005-1.1 | ATP-CMG-4005-1.1 | ATP-CMG-5005-1.1 | ATP-CMG-6005-1.1 |
| | | | Conduct competitive analysis to determine areas of enhancement and cost savings for flight networks | Review and analyse the implications of flight networks on downstream operations such as fleet assignment and code-sharing partners | Drive the development of short-term to mid-term flight networks and consequent strategies to mitigate risks caused by network uncertainty | Spearhead continuous improvement efforts through the integration of advanced analytics and collaborations with key stakeholders |
| Knowledge | | | <ul style="list-style-type: none"> Procedures and purposes of flight network planning Principles of airline operations Airline economics and cost structures Overview of airline scheduling Factors to consider before adding flights into new markets or removing flights from current markets such as global schedules and flight networks of competitors Network planning models Factors affecting air travel demand Constraints in airline operations Fleet planning and evaluation Local and international guidelines such as International Civil Aviation Organisation | <ul style="list-style-type: none"> Key differences in network and configuration between different carrier types such as full service airlines, Low Cost Carriers (LCC) and charters Factors to consider before adding flights into new markets or removing flights from current markets such as global schedules and flight networks of competitors Network planning models Network planning and optimisation techniques Airline economics and cost structures Fleet planning and evaluation Relationships, dynamics and interdependencies between commercial and operational departments in airlines | <ul style="list-style-type: none"> Factors to consider before adding flights into new markets or removing flights from current markets such as global schedules and flight networks of competitors Network planning models Network planning and optimisation techniques Current and expected future competition for forecasted routes Risk mitigation strategies for network planning Theories of route forecasting models Constraints in airline operations Alliances and partnerships in the aviation industry Fleet planning and network planning strategies of airlines and competitors | <ul style="list-style-type: none"> Factors to consider before adding flights into new markets or removing flights from current markets such as global schedules and flight networks of competitors Network planning models Network planning and optimisation techniques New international developments in the area of route forecasting Strategic management Concepts of proration contracts Constraints in airline operations Theories of route forecasting models Politics of aviation Alliances and partnerships in the aviation industry Fleet planning and network planning |

**SKILLS FRAMEWORK FOR AIR TRANSPORT
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

| | | | | | | |
|------------------|--|--|--|--|---|--|
| | | | (ICAO) Annex for Rules of the Air | <ul style="list-style-type: none"> • Procedures for airline scheduling • Constraints in airline operations • Alliances and partnerships in the aviation industry • Local and international guidelines such as International Civil Aviation Organisation (ICAO) Annex for Rules of the Air | <ul style="list-style-type: none"> • Local and international guidelines such as International Civil Aviation Organisation (ICAO) Annex for Rules of the Air | <p>strategies of airlines and competitors</p> <ul style="list-style-type: none"> • Local and international guidelines such as International Civil Aviation Organisation (ICAO) Annex for Rules of the Air |
| Abilities | | | <ul style="list-style-type: none"> • Check and collate flight network schedules of competitors • Identify possible routes based on network hub structures and global schedules • Determine best partner flights for code-sharing • Determine cost and operational deviations between designed optimal networks and actual optimal networks | <ul style="list-style-type: none"> • Evaluate the effectiveness of flight networks in meeting market demand • Propose changes to flight networks and schedules • Determine optimal departure and arrival times with consideration for operational constraints and available slots • Determine operational implications for the implementation of flight networks for airlines • Propose approaches for assignment of fleet types and sizes to flight networks | <ul style="list-style-type: none"> • Develop overall hub-and-spoke or point-to-point models for flight networks through the selection of destinations or hubs • Oversee the development of short-term to mid-term optimal flight networks for the airlines • Develop strategies to reduce risks caused by network changes, uncertainty and volatility • Integrate advanced algorithms such as simulated annealing into flight network planning • Assay impact of code-shares and proration contracts of competitors on network and revenue optimisation for own airlines | <ul style="list-style-type: none"> • Drive the integration of advanced analytics to develop long-term optimal flight networks for the airlines • Develop and nurture relationships with other airlines for the purposes of alliances and partnerships • Anticipate impact of competitors' networks and fleet growth on own airlines' operations • Calibrate network plans based on competitors' strategies and airlines' long-term business strategies |