

Aerosim Inter-School Aviation Tournament 2022

Overview

Aerosim Inter-School Aviation Tournament 2022 (AIAT2022) is a tournament engaging all interested Hong Kong Secondary students to actualise their STEM understanding and explore their interest in the aviation industry. The implications of this tournament include the application of STEM education in the aviation field, realistic flight simulation contests as well as aviation career exposure.

The Aerosim Inter-School Aviation Tournament 2022 (AIAT2022) is organised by Aerosim (HK) Limited (the “Organiser”). With the support of our strategic partners, Aerosim (HK) Limited looks to groom and cultivate a new generation of aviation specialists catering to the demands consistent with the Chief Executive’s 2021 Policy Address and the 14th Five-Year Plan. AIAT2022 is the first ‘full-stack’ aviation tournament of its kind; our tournament extends beyond flight simulation and requires students to actively engage in critical thinking, problem solving, communications among countless other applicable skills beneficial to career development.

Objectives

- To raise awareness and interest for STEM-related subjects and provide students with an early career exposure through the aviation industry
- To instill positive values and professional aptitude in students
- To encourage students to develop different forms of personal skills, including critical and innovative thinking, communication, team-working and problem-solving
- To motivate students to reach their full potential

This tournament will take place from 21st Jan 2022 to Aug 2022.

Remark:

Further finalisation of dates are contingent on the COVID pandemic and all relevant information will be updated on Aerosim platforms (www.aerosim.com.hk/tournament2022)

Eligibility

Secondary school students in Hong Kong

- All teams must consist of **4 to 5** students per team led by a teacher in-charge
- Schools are allowed to be represented by more than one team
- All applicants must be representing a school or other specified sponsored team
- Entrants must not have more than 10 hours of flying experience
- Any students registration must obtain parental consent and school approval

Application Fee

Application fee (per participant)	HKD 2,000 (*early bird discount HKD 1,900)
Each team member will receive the following training and support during the tournament:	
1. Jeppesen's Part 61 Subscription	<ul style="list-style-type: none"> • 1 student per Jeppesen online portal • Validity of the subscription is <u>1 Year from the date of subscription</u> • Boeing and FAA certificate will be issued upon achieving 80%+ at the end of course exam • Student will be entitled to take part in the Federal Aviation Administration (FAA) Private Pilot's License (PPL) Written exam with Jeppesen's endorsement
2. Aviation-STEM Online Tutorial (Total 12 Hours)	<ul style="list-style-type: none"> • Online video lectures will be provided to each student • The tutorial will be instructed by commercial pilots • Covers the knowledge that will be tested during the tournament. Each student will be granted access to Moodle to revise the tutorial at their own time • The online video lectures will cover the topics as listed below: <ul style="list-style-type: none"> ○ Aerodynamics Principles; ○ Aircraft Systems; ○ Meteorology for Pilots; and ○ Applying Human Factors Principles
3. Career Takeoff Workshop	<ul style="list-style-type: none"> • Sessions will be held during the tournament and each team is eligible to join any session once • The workshop introduces STEM-related careers in the aviation industry and arouses students' interest in pursuing these careers

4. Progress Tests	<ul style="list-style-type: none"> Number of progress tests will be provided to the students as learning support. The progress tests cover the knowledge that will be tested during the tournament
5. 1 set of Microsoft Flight Simulator software	<ul style="list-style-type: none"> A set of Microsoft Flight Simulator: Standard Edition (PC) will be distributed for each team
<p><u>3-hour flight training workshop</u> will be provided to participant who is qualified for the final</p>	

Optional Add-Ons	HKD \$9,500
Aviation Youth Mentorship Program	<ul style="list-style-type: none"> Each team has the right to join the Aviation Youth Mentorship Program The program is aiming to help the students to attain a deeper understanding of the knowledge covered during the tournament The program will be conducted from March 2022 to July 2022 The application fee for the program is <u>HKD 9,500</u> for each team (5 team members) The program covers the following items: <ul style="list-style-type: none"> An airline pilot will be assigned to each team as a mentor during the program and mentoring sessions will be conducted on a monthly basis (1:1 mentor to team ratio) A <u>5-Hours flight simulator training</u> will be provided to each team A Jeppesen Private Pilot Syllabus will be distributed to each team member For any parties interested in joining this program, please kindly register your intention via the tournament registration form

Registration

- Application period is between 21st Jan 2022 and 28th Feb 2022
- Applications submitted before noon 14th Feb 2022 will enjoy early bird discount.
- Any application submitted after 23:59 on 28th Feb 2022 will **not** be considered
- Application is only available on www.aerosim.com.hk/tournament2022
- Entire application including payment **must be completed** in full prior to the deadline
- Application can only be completed by a school staff representative or other specified sponsored team representative
- Successful applications should receive a confirmation email from the organiser

- All students signed up for the tournament will be provided with an online training account

Tournament Timeline and Format

1	Online Registration (21st Jan 2022 to 28th Feb 2022)	Participating teams will receive a confirmation email from the organiser after registration and screening
2	Fundamental Aviation Training (Mar 2022 to Jul 2022)	Online and Face-to-Face complementary training sessions and career workshops will be arranged every month in stages
3	Aviation - STEM Project Submission (May 2022)	The assessment will be conducted in the form of a group project. The assessment is weighted at 60% of the passing mark to qualify for the Grand Finale
4	Aviation General Knowledge Test (Jul 2022)	The test will be conducted in the form of an individual assessment. The assessment will be multiple-choice questions and it is weighted at 40 % of the passing mark for the Grand Finale
5	Finalist Announcement (Jul 2022)	The judging panel will review and select finalists for the Grand Finale
6	Grand Finale - Simulated Aviation Cadet Selection (Aug 2022)	The finalist will be assessed through a flight planning exercise, presentation, and flying challenges using flight simulators
7	Awards Presentation Ceremony (Aug 2022)	Winners will be invited on stage to accept awards and certificates and conduct sharing sessions with the audience

Tournament & Training Particulars

- **Fundamental Aviation training** will be provided to each participant by the organiser
- Each participant will be granted access to the online education portal (namely “Moodle”) and Jeppesen’s online learning portal (namely “Jeppesen Learning Center”)
- The fundamental aviation training consists of aviation theory tutorials, career workshops and progress tests
- The online aviation theory tutorials will be instructed by commercial pilots and they will be conducted in stages. Participants may revise the content of each tutorial via Moodle
- Participants will be arranged to attend career workshops and the workshops will be conducted in either face-to-face or online format
- Participants may study the Jeppesen Part 61 curriculum via Jeppesen Learning Center

- Training materials (notes and online tutorials) will be uploaded to Moodle for student access.
- Absence from classes will be **not** refunded or replaced
- The Organiser reserves the right to arrange the support session at designated time slots and arrange support sessions with other participants in the format of workshop
- Participants may consider joining the **Aviation Youth Mentorship Program** for additional training

Aviation - STEM Project (Group Based - 60%) (Heat/Elimination Stage)

- Group presentation consists of 2 parts;
 - Part A - Written Report - Investigative information gathering and dissemination for the purpose of describing the allocated aviation-related topic. (Incident Report)
 - **Maximum** Word Count
 - Chinese: 600 words
 - English: 1,000 words
 - Part B - Video Recorded Presentation - Presentation for the purpose of describing solutions and improvements concerning the allocated topic
 - **Maximum** Presentation Length: 7 minutes
 - The video should be created as an **“unlisted”** video and uploaded onto a third-party online platform (i.e. YouTube)
 - All teams must submit the video link via Moodle prior to the deadline set by the Organiser
- Topics will be **allocated** to the teams to the discretion of the Organiser
- All presentation materials **must include** allocated group number and respective school name
- All team members are encouraged to proactively take part in the group project and to exercise strong sportsmanship and accountability

Aviation General Knowledge Test (Individual - 40%) (Heat/Elimination Stage)

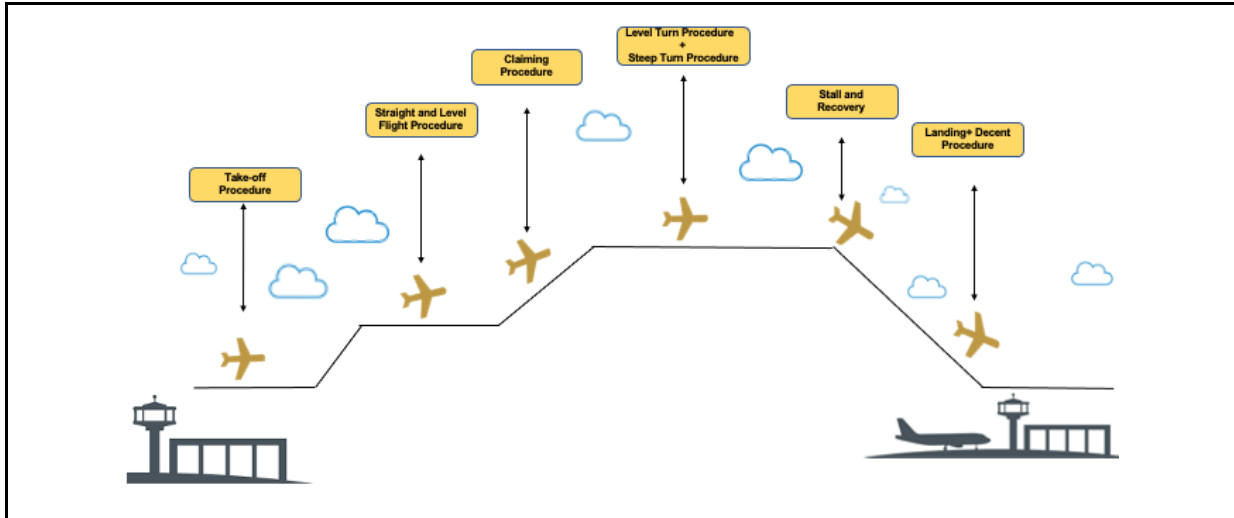
- The test covers specific topics from the Jeppesen’s Part 61 curriculum. The topics are:
 - Aerodynamics Principles;
 - Aircraft Systems;
 - Meteorology for Pilots; and
 - Applying Human Factors Principles

- The written test will be provided by the Organiser
- This exam will **not** be conducted in an open-book manner
- Cheating of any form will **not** be tolerated
- Failure to turn up for written test will be deemed as **disqualification**
- Disqualified students will **not** be able to take further part in this tournament

Grand Finale - Simulated Aviation Cadet Selection

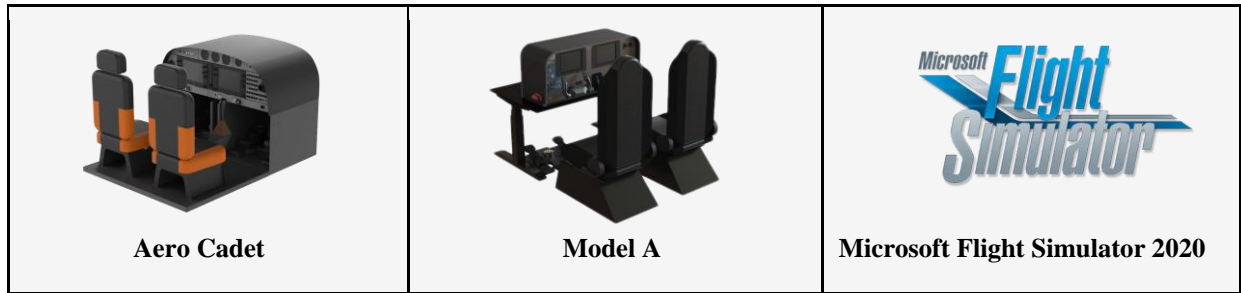
- The finale consists of **2 stages**:
 - A) Flight Planning Assessment and Presentation
 - B) Flying Challenges
- A) Flight Planning Assessment and Presentation (Group - Individual basis 40%)
 - Flight Planning Assessment
 - Scenario: Hong Kong International Airport closed for inbound flight due to operational reasons, all aircraft are required to divert to the alternate aerodrome.
 - Task: There will be a total of 3 students in one group, each one of them having varying pieces of information where they are required to decide the alternative aerodrome they will divert to in the given situation based on the considerations of different factors including fuel efficiency, aircraft performance, in-flight and airport operations, weather etc.
 - Mark: All evaluations will be conducted by 2 groups of judges representing different career backgrounds.
 - Qualification of Judging panel groups: Commercial Pilot Licence Holder and Entrepreneur
 - Duties of the Judging panel: Judging on efficient Communications, Situational Awareness, Decision-making under pressure and Mentality(Confidence, Attitude)
- B) Flying Challenges (Individual - 60%)
 - Microsoft Flight Simulator Challenge (10%)
 - Task: Each participant will be required to fly a specific flight track in the shortest possible time with accurate flight path
 - Checklist Assessment (25%)

- Task: Students are required to conduct the aircraft checklist including Before Start Procedure, Engine Start Procedure, Before Take off Procedure.
- Flight Check Assessment (25%)
 - Task: Students are required to accomplish the fundamental flying skills including straight and level and level etc.



Tasks	Basic Requirements
Take-off	Students will perform take-off procedures with desired plane setting and airspeed.
Straight and level	Upon reaching the required altitude, students will control the plane accordingly to maintain the altitude within tolerance.
Climb	Students will be asked to climb with the correct climb procedure and airspeed.
Turn	Students will be instructed to perform turning with certain bank angles (15°/30°/45°) while maintaining level flight.
Descend	Students will perform the correct power off and power on descend procedure within the speed limit.
Landing	Students will demonstrate their ability to perform a successful landing with the desired plane configuration.

- Hardware in use
 - Aero Cadet (Aerosim Proprietary Synthetic Flight Training Device)
 - Model A (Aerosim Proprietary Synthetic Flight Training Device)
 - Microsoft Flight Simulator 2020



- The flight simulation tests will be utilizing the Aero Cadet, Model A and Microsoft Flight Simulator 2020
- All flying must be done using manual flying. Autopilot is not permitted

Enquiries

Aerosim Inter-School Aviation Tournament 2022

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