

Sant Dnyaneshwar Shikshan Sanstha's

Annasaheb Dange College of Engineering and Technology, Ashta (An Empowered Autonomous Institute)



Department of Aeronautical Engineering

Innovation in Teaching Learning Process

Case Study & role play on Flight Information Service, Traffic Advisory and Emergency response in Airport

Name of the Innovation : Case study & role play Flight Information Service, Traffic Advisory

and Emergency response in Airport

Course Code and Name : 2AEAT301 - Airport Operation and Air Traffic Control

Class and Semester : T.Y Minor

Academic Year and Term : 2024-2025 & Odd

Faculty Name and Designation : Mr. L. Oblisamy, Assistant Professor

Introduction:

Flight Information Service (FIS) and Traffic Advisory play a vital role in maintaining safe and efficient air traffic operations, especially in uncontrolled or busy airspace. Understanding these services is essential for aviation students to grasp how pilots receive vital information such as weather updates, traffic positions, and airspace restrictions. This activity uses **case study and role play techniques** to simulate real-world communication between pilots and air traffic service units, allowing students to actively engage with the operational aspects of aviation communication and decision-making.

Motivation/Purpose of Innovative Technique:

The purpose of this innovative model-based activity is to bridge the gap between theoretical knowledge and real-world application.

- Provide students with a realistic and immersive learning experience,
- Help them understand the critical thinking and timely communication required in real flight operations,
- Encourage teamwork, situational awareness, and quick decision-making,
- Allow students to apply theoretical knowledge to simulated aviation scenarios,
- Bridge the gap between textbook learning and real-world aviation communication practices.

Procedure Followed:

One Activity Based Assessment (ABA) Techniques were provided to students as a part of their In-Semester Evaluation(ISE) for a weightage of 20% of the overall assessment. The following are the details of the assessment.

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Activity Based Assessment No 3

Semester - V Class: T.Y. B. Tech, Minor

Course Code :2AEAT301 Course Title: Airport Operation and Air Traffic Control

Case study & role play Flight Information Service, Traffic Advisory and Emergency response in Airport

Graded Assignment: 20 Marks (50 % Weightage in ABA)

Deadline for Submission: 20th November 2024, (11:59 PM)

Objective:

To help students understand and apply the principles of Flight Information Service (FIS) and Traffic Advisory through realistic case-based scenarios and interactive role play, improving their communication, decision-making, and operational awareness in air traffic situations.

Rationale:

FIS and Traffic Advisory services are critical for safe flight operations, especially in non-controlled airspace. While textbooks explain these concepts, students often find it difficult to visualize how they work in practice.

Using case studies allows students to explore real-world problems, while role play lets them actively simulate the roles of pilots and flight service personnel. This approach:

- Enhances understanding through experiential learning,
- Encourages active participation and collaborative thinking,
- Builds confidence in communication and situational response,
- Reinforces theoretical knowledge with practical skills.

Evaluation Criteria:

Report on case study:

- Understanding of FIS and Advisory services
- **♦** Alerting services
- Examination of Emergency procedures

Role Play:

- Understanding of Roles
- Engagement and Participation
- Coordination and Teamwork
- Communication Skill.

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Outcome:

After this activity, students understood how flight information and traffic updates are shared between pilots and services. Acting out real situations helped them learn how to communicate clearly and make decisions quickly, just like in real flight operations. It made the topic more interesting and helped to feel more prepared for future roles in aviation.





References:

- Stanley L. Harriman, Richard 0.Fanjoy, and Donald A. Petrin, SMALL GENERAL A MA TION AIRPORT EMERGENCY PREPAREDNESS AND THE PERCEIVED RISKS OF VERY LIGHT JET OPERATIONS, Journal of Aviation/Aerospace Education & Research, 19(1). DOI: https://doi.org/10.15394/jaaer.2009.1382.
- 2. Jeffrey C Price, Jeffrey S Forrest, Airport Emergency Planning, Part II, 2016 Feb 19:427–487. doi: 10.1016/B978-0-12-800515-6.00011-1.