GOPALAN COLLEGE
OF ENGINEERING AND MANAGEMENT
WHITEFIELD, BANGALORE

Department of
Aeronautical Engineering
GCEM, Bangalore

Course Title : AVIATION MANAGEMENT

Course Code:
21AE61

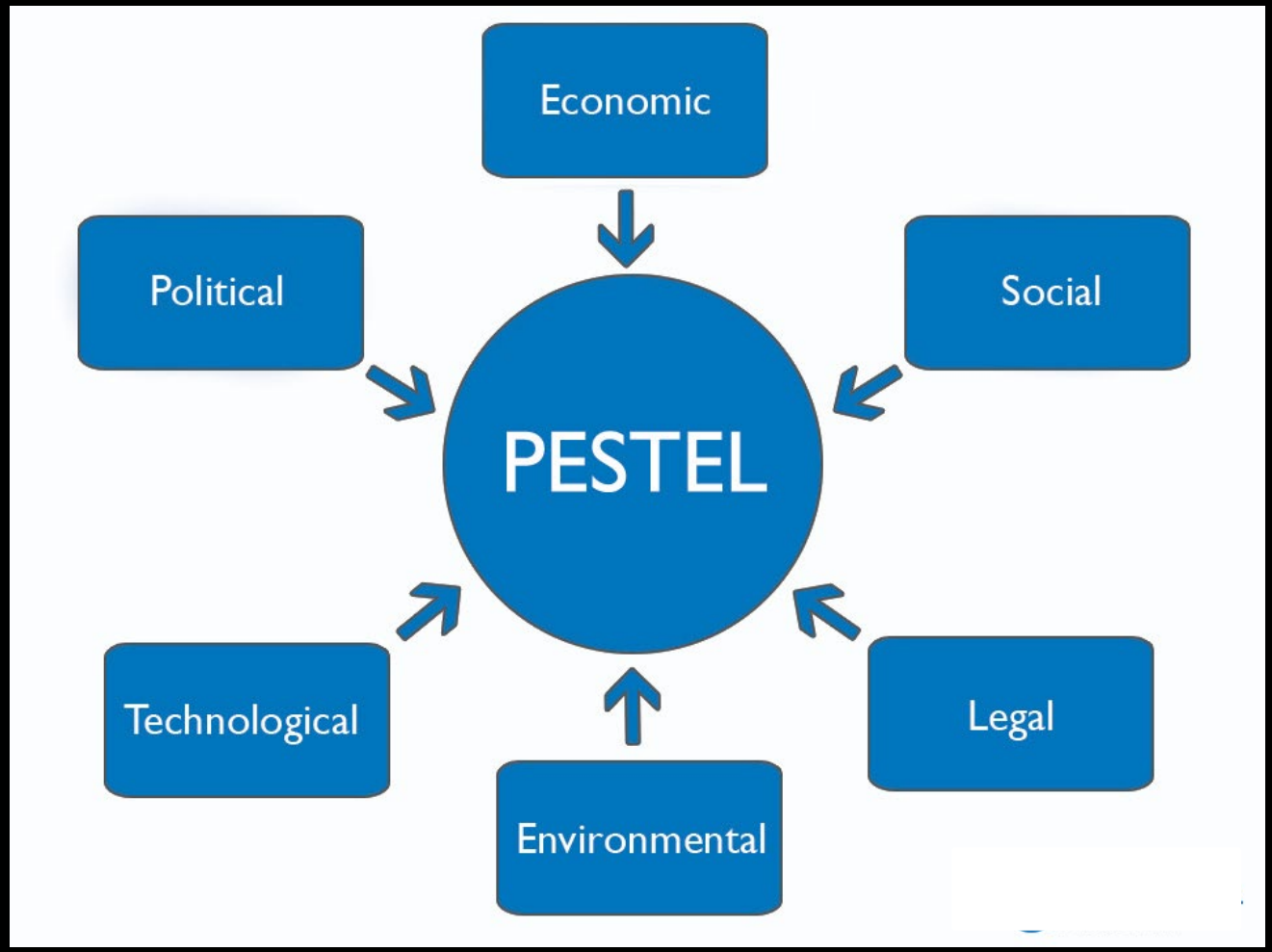
Module - 3

Airline Marketing Management

The airlines find out insights of the marketing environment using a powerful model of analysis called the PESTEL analysis.

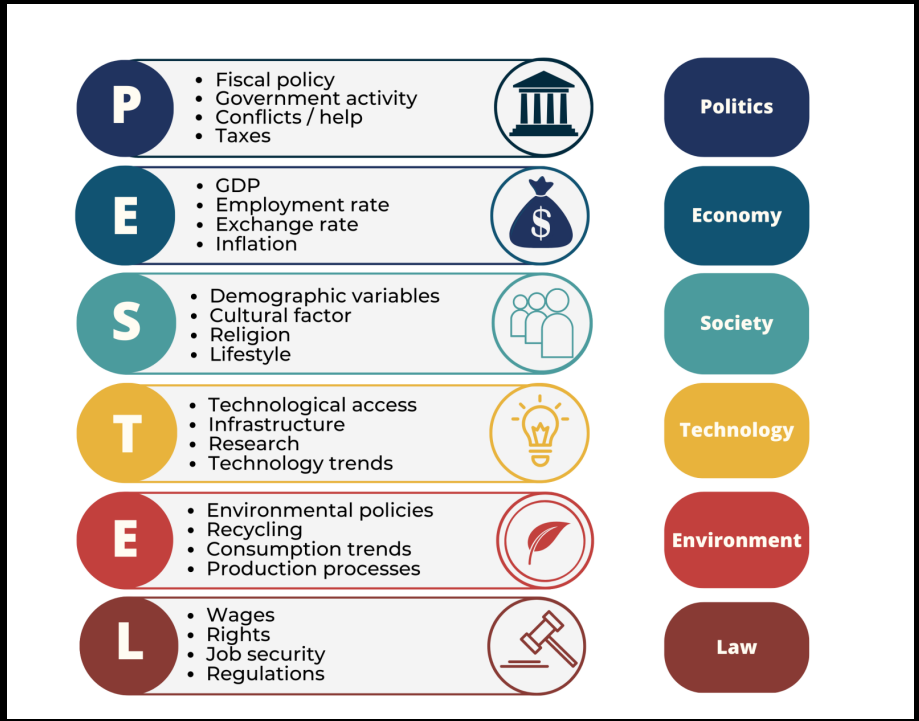
PESTEL Analysis

The field of marketing comes up with a useful model for the study of an organization's Marketing Environment. This model proposes that the factors should be categorized into Political, Economic, Social, Technological, Environment and Legal (PESTEL).



Airline Marketing Management

- Political Factors – Fear of terrorism, political instability in the country, deregulation of government policies.
- Economic Factors – Economic growth or instability in the country.
- Social Factors – Aging population, change in holidaying tastes, change in family structures, uncertain labor.
- Technological Factors – High-speed electronic devices, fuel-efficient aircrafts, Internet.
- Environmental Factors – Resource scarcity, recycling, alternative energy sources.
- Legal Factors – Contracts, Laws and IPR



Airline Marketing Management

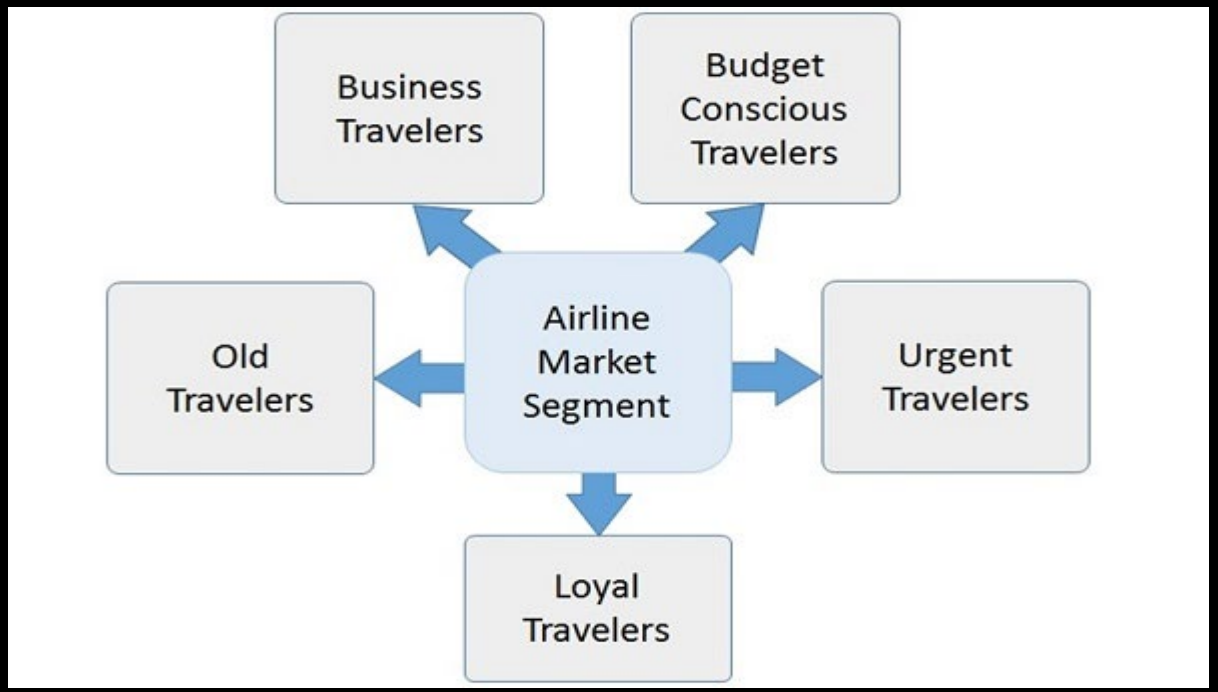
Knowing the Airline Customers

To market their service, the airlines works on understanding their customer's psyche, demographics and needs.

Airline Customer Segmentation

- Old Travelers – They are aged customers probably retired and go on holidays frequently.
- Business Travelers – They are frequent flyers and form a large segment.
- Budget Conscious Travelers – They look for the most inexpensive airline without knowing much about the different airline services.
- Loyal Travelers – They travel frequently and as they travel frequently with the same airline, the airline offers some benefits to them and also the miles.
- Urgent Travelers – They share a small market segment and do not fly frequently. They fly only for unexpected causes.

Airline Marketing Management



Airline Marketing Management

What do Customers Expect Before, During, and After the Flight?

- Timeliness in Service − Delays at baggage counters and in flight departure create a lasting negative impact on the passengers.
- Assurance of Reliable Service − The airline staff committed to service and highest customer satisfaction. The quality of service is always up.
- Convenience − Easy check-ins systems and ticket reservations.
- Attentiveness − The airline staff that recognizes needs and works a step ahead to meet them constructively.
- Comfort − Adequate knee and leg room around seat.
- Meals − Free in-flight meals of satisfactory quality.
- Safety and Security − Emphasis on safety and security.

Airline Marketing Management

Airline Marketing on Social Media

All the airlines around the world understand that today's customers are tuned to Internet almost all the time hence, the airlines tend to make a striking presence on Internet. The airlines are leveraging ways to reach their customers using social media too.

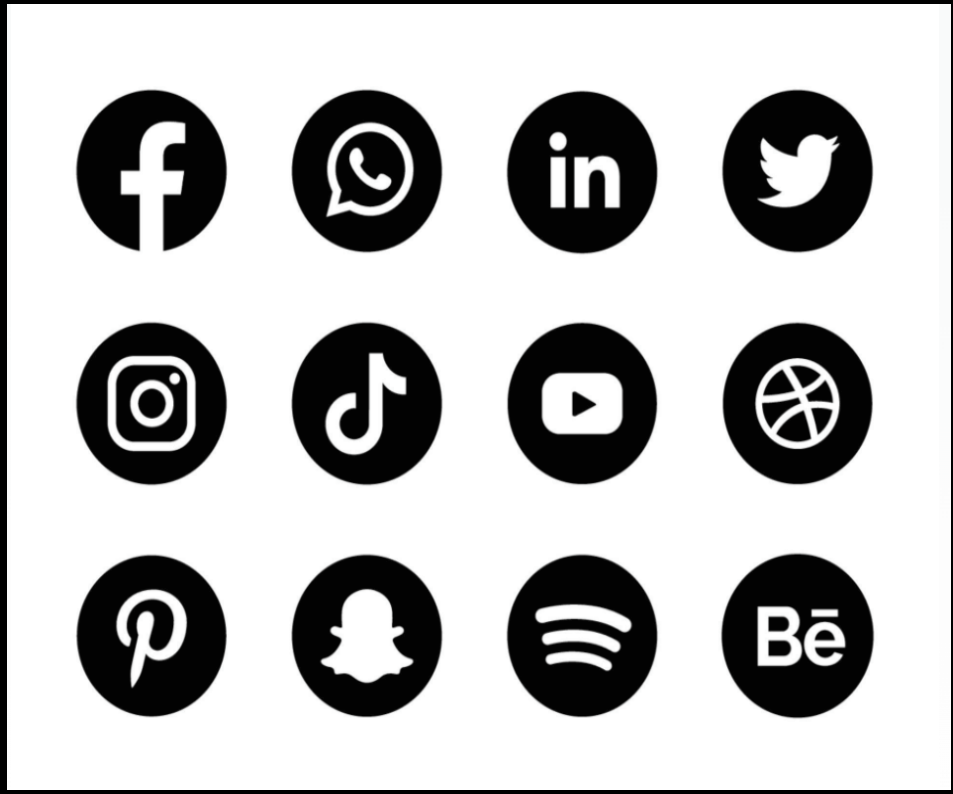
For example, Cathay Pacific Airways has created a Facebook page to display deals, promotions, limited-period offers, and videos about the airline. Qatar Airways has a strong presence on Twitter with sharing news, events, upselling, and conveying the information on how the company is doing.

Turkish Airlines marketing policy depends on using hashtags for building relevance and authenticity, whereas Emirates is using Instagram.

Maintaining presence on the social media is a 24x7 work for which the airlines hire people, who know business strategies, write powerful content, and have the knowhow of brand positioning.

The airlines use Meme Jacking, the concept that spreads from person to person via Internet. It is an effective way to create a buzz around the brand.

The airlines also create webpages and videos based on the customers' location and culture. The videos go viral and work without bringing out the customers from their comfort zone.



Airline Marketing Management

Airline Alliances

An alliance necessarily means an agreement between the airlines to work in cooperation substantially.

Why Airlines Form Alliances?

Working in alliances has benefits for both the airline and also the travelers.

Benefits of Alliance for Airline:

- Reduction in maintenance cost.
- Reduction in operating staff.
- Reduction in investment and procurement costs.

Benefits of Alliance for Traveler:

- Lower ticket prices due to lowered operational costs.
- More options for departure times to choose from.
- More destination options.
- Shorter travel time.
- Access to a large range of airport lounges shared with alliance members.
- Faster mileage rewards in single account on several different carriers.

Total Quality Management

- A management approach focused on continuous improvement
- Involves all members of an organization
- Aims to meet customer needs and expectations
- Achieved through various tools and techniques

Total Quality Management

Why is TQM Important in Aviation?

- Safety is paramount in aviation
- Even minor defects can have catastrophic consequences
- TQM helps to prevent accidents and incidents
- Improves efficiency and reduces costs
- Enhances customer satisfaction

Total Quality Management

How is TQM Applied in Engineering?

Design engineering:

- Rigorous design reviews and testing
- Failure Mode and Effects Analysis (FMEA)

Manufacturing engineering:

- Statistical process control
- Six Sigma methodologies

Maintenance engineering:

- Preventive maintenance programs
- Continuous improvement of maintenance procedures

Total Quality Management

Benefits of TQM in Aviation

- Enhanced safety record
- Increased operational efficiency
- Reduced costs
- Improved customer satisfaction
- Competitive advantage

TQM is a cornerstone of success in aviation Requires commitment from all levels of the organization, Fosters a culture of safety and continuous improvement, Engineers play a critical role in achieving total quality.

Strategic Management

Definition of Strategic Management: The process of defining an organization's strategy and making decisions on allocating resources to pursue this strategy.

Importance of Strategic Management in Aviation: Ensures long-term sustainability, competitiveness, and adaptation to market changes.

Strategic Management

The Evolution of Strategic Management in Aviation

- Early Strategies: Focus on expanding routes and building fleets.
- Deregulation Era: Increased competition, cost management, and market segmentation.
- Modern Era: Emphasis on technology, customer experience, and environmental sustainability.

Vision and Mission Statements in Aviation

Vision Statement: Long-term aspiration of the company.
Mission Statement: The company's purpose and primary objectives.
Importance: Guides strategic planning and decision-making.
Examples from Major Airlines:
Delta: "To be the world's most trusted airline.“
Emirates: "Connecting the world to, and through, our global hub in Dubai."

Strategic Management

SWOT Analysis

Internal Analysis:

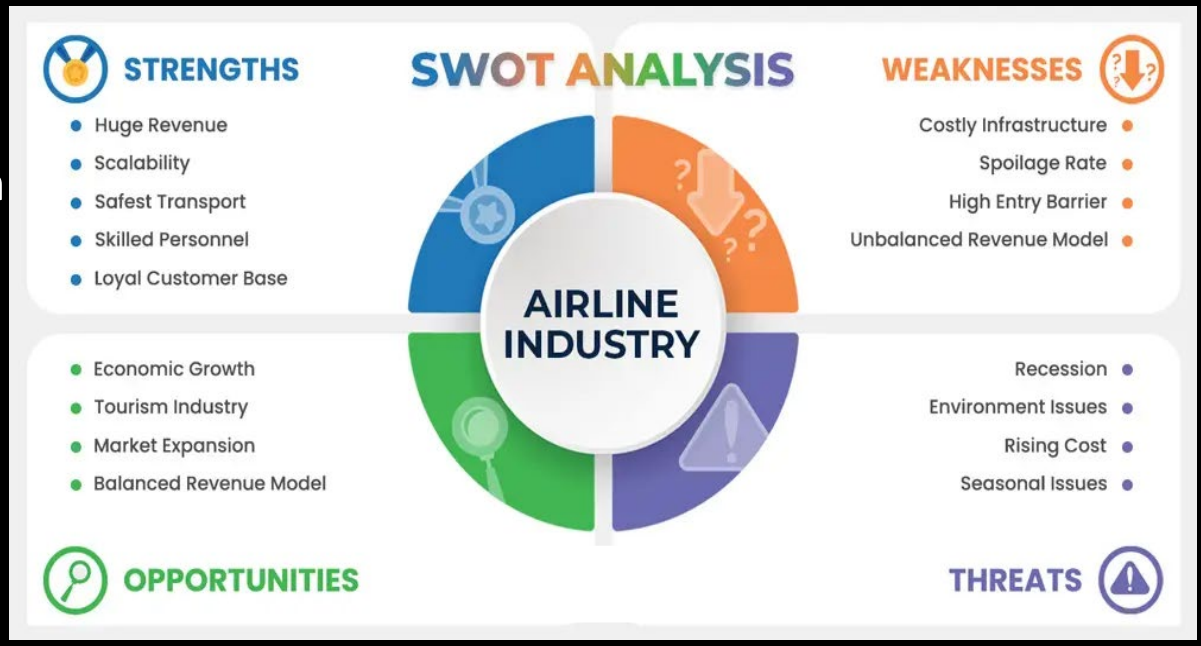
Strengths: Strong brand, extensive route network, alliances.

Weaknesses: High operational costs, dependence on fuel prices.

External Analysis:

Opportunities: Emerging markets, technological advancements.

Threats: Regulatory changes, economic downturns, pandemics.



Strategic Management

Strategy Formulation

Corporate-level Strategy: Decisions on overall scope and direction (e.g., mergers and acquisitions, diversification).
Business-level Strategy: Competitive strategies (e.g., cost leadership, differentiation, focus).
Functional-level Strategy: Specific strategies in departments like marketing, operations, finance.

Strategy Implementation

Action Plans: Translating strategy into operational plans.
Organizational Structure: Aligning structure with strategy (e.g., centralized vs. decentralized).
Resource Allocation: Budgeting and resource distribution.
Change Management: Managing resistance, training, and communication.

Strategic Management

Strategy Evaluation and Control

- Monitoring Performance: Using KPIs to track progress

(e.g., load factor, on-time performance).

- Feedback Loops: Continuous improvement processes.
- Adjusting Strategies: Making necessary adjustments based on performance data.

Key Performance Indicators

Operational KPIs: On-time performance, turnaround time.
Financial KPIs: Revenue per available seat mile (RASM), cost per available seat mile (CASM).
Customer KPIs: Customer satisfaction scores, net promoter score (NPS).

Strategic Management

Challenges in Aviation Strategic Management

- Regulatory Challenges: Compliance with international regulations (e.g., FAA, EASA).
- Environmental Challenges: Reducing carbon footprint, adhering to environmental regulations.
- Economic Fluctuations: Impact of fuel price volatility, economic recessions.
- Technological Advancements: Keeping up with rapid technological changes.
- Market Competition: Competing with low-cost carriers and new entrants.

Supply Chain Management

Efficient aviation supply chain management is paramount for the seamless operation of airlines, airports, manufacturers and suppliers. As global air travel demands continue to soar, adhering to best practices is essential for both efficiency and cost-effectiveness.

Supply chain management holds immense importance in the aviation industry for a number of reasons, including:

Complexity of Operations: Aviation operations involve various interconnected processes, including manufacturing, logistics, maintenance and distribution. Efficient supply chain management ensures seamless coordination, preventing delays and disruptions.

Cost Control : The aviation industry operates on tight profit margins and effective supply chain management is crucial for controlling costs. Optimizing procurement, inventory management and transportation helps to reduce expenses and enhance overall profitability.

Customer Satisfaction : Timely delivery of aircraft components, materials and spare parts is essential for maintaining customer satisfaction and loyalty. Effective supply chain management ensures prompt and efficient fulfillment of customer demands, thereby enhancing the reputation of aviation companies.

Safety and Compliance : Adherence to stringent safety regulations is paramount in aviation. Supply chain management helps to ensure all components, parts and materials used in aircraft construction and maintenance meet regulatory standards, maintaining safety and operational integrity.

Supply Chain Management

Technologies in Aviation Supply Management

1. Enterprise Resource Planning (ERP) Systems

•**Functionality**: Integrates various functions such as procurement, inventory management, and logistics into a unified system.

•**Benefits**: Improved efficiency, real-time data, and better decision-making.

2. Radio Frequency Identification (RFID)

•**Usage**: Tracking and managing inventory with greater accuracy.

•**Advantages**: Enhanced visibility and reduced human error.

3. Big Data and Analytics

•**Application**: Predictive analytics for demand forecasting, optimizing inventory levels, and improving supply chain resilience.

•**Tools**: Data mining, machine learning algorithms, and statistical analysis.

Supply Chain Management

Best Practices

1. Demand Forecasting

- **Importance**: Accurate demand forecasting to ensure optimal inventory levels and reduce costs.
- **Methods**: Historical data analysis, market trends, and predictive analytics.

2. Supplier Management

- **Key Actions**: Regular assessment of supplier performance, fostering long-term partnerships, and ensuring supplier compliance with standards.
- **Strategies**: Supplier scorecards, performance reviews, and collaborative planning.

3. Continuous Improvement

- **Philosophy**: Implementing practices such as Lean, Six Sigma, and Total Quality Management (TQM) to enhance processes and reduce waste.
- **Tools**: Kaizen, DMAIC (Define, Measure, Analyze, Improve, Control), and PDCA (Plan, Do, Check, Act).

Aircraft Maintenance Management

Aircraft maintenance involves the tasks required to ensure the continued airworthiness of an aircraft or aircraft part, including overhauls, inspections, replacements, defect rectification, and the embodiment of modifications.

Goals:

- Safety,
- Reliability, and
- Compliance with regulatory requirements.

Aircraft Maintenance Management

Types of Aircraft Maintenance

1.Preventive Maintenance:

- Regular, scheduled inspections and tasks.
- Aimed at preventing failures before they occur.

2.Corrective Maintenance:

- Performed to correct defects or issues found during inspections or flights.

3.Predictive Maintenance:

- Uses data and statistical models to predict failures before they occur.

4.Scheduled Maintenance:

- Based on calendar time, flight hours, or cycles (e.g., daily checks, A/B/C/D checks).

5.Unscheduled Maintenance:

- Arises from unexpected issues detected during operations.

Aircraft Maintenance Management

Maintenance Programs

1. **Maintenance Steering Group (MSG) Logic:**
   - Methodology for developing a maintenance program.
   - Includes MSG-1, MSG-2, and MSG-3 (current standard).
2. **Maintenance Planning Document (MPD):**
   - Manufacturer's recommendations for maintenance.
3. **Maintenance Review Board (MRB) Report:**
   - Document developed with the participation of regulatory authorities and operators.

Maintenance, Repair, and Overhaul (MRO) Organizations

1. **Roles and Responsibilities:**
   - Perform maintenance tasks as per regulations.
   - Ensure quality control and compliance.
2. **Certification and Approvals:**
   - MROs must be certified by regulatory bodies (e.g., FAA, EASA, DGCA).
3. **Types of MROs:**
   - Airframe MRO, Engine MRO, Component MRO

Aircraft Maintenance Management

Maintenance Procedures and Documentation

1. **Aircraft Maintenance Manual (AMM):**
   - Provides detailed instructions for maintenance tasks.
2. **Component Maintenance Manual (CMM):**
   - Details maintenance procedures for specific components.
3. **Airworthiness Directives (ADs):**
   - Issued by regulatory authorities to address safety issues.
4. **Service Bulletins (SBs):**
   - Recommendations from manufacturers for modifications or inspections.

Aircraft Maintenance Management

Human Factors in Maintenance

1. **Importance of Human Factors:**
   - Impact of human performance on safety and maintenance quality.
2. **Common Human Factor Issues:**
   - Fatigue, communication errors, lack of training.
3. **Mitigation Strategies:**
   - Training programs, adequate rest periods, clear communication protocols.

Aircraft Maintenance Management

Maintenance Management Systems

- **Computerized Maintenance Management Systems (CMMS):**
  - Software used to manage maintenance activities.
- **Functions of CMMS:**
  - Scheduling, tracking, inventory management, compliance reporting.
- **Benefits of CMMS:**
  - Increased efficiency, improved accuracy, better regulatory compliance.

Maintenance Cost Management

- **Cost Factors:**
  - Labor, materials, downtime, unexpected repairs.
- **Cost Control Strategies:**
  - Efficient scheduling, inventory management, predictive maintenance.