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भारतीय मानक मसौदा

**वैमानिक और खगोलीय शब्दों की शब्दावली
भाग 1 सामान्य**

(आई एस 7879 का पहला पुनरीक्षण)

Draft Indian Standard

**GLOSSARY OF AERONAUTICAL AND ASTRONAUTICAL TERMS
PART 1 GENERAL**

(First Revision of IS 7879)

ICS 49.020

Air and Space Vehicles Sectional Committee, TED 14 Last date for receipt of comments is 09/7/2024

FOREWORD

(Formal Clause to be added later)

This standard was first published in 1975. The present revision has been taken up with a view to incorporating the modifications found necessary as a result of experience gained on the use of this standard. Also, in this revision, the standard has been brought into the latest style and format of Indian Standard, and references to Indian Standards, wherever applicable have been updated.

This standard is one of the series of Indian Standards on 'Glossary of Aeronautical and Astronautical terms'. Other standards in this series are:

IS 7879 (Part 2) : 1975	Glossary Of Aeronautical and Astronautical Terms: Part 2 Motion of Aircraft
IS 7879 (Part 3) : 1975	Glossary of Aeronautical and Astronautical Terms: Part 3 Structure
IS 7879 (Part 4) : 1980	Glossary of Aeronautical and Astronautical Terms: Part 4 Aerodynamics
IS 7879 (Part 5) : 1982	Glossary of Aeronautical and Astronautical Terms: Part 5 Aerodynes (Heavier - Than - Air - Aircraft)
IS 7879 (Part 6) : 1978	Glossary of Aeronautical and Astronautical Terms: Part 6 Space Terms
IS 7879 (Part 7) : 1984	Glossary of Aeronautical and Astronautical Terms: Part 7 Air Traffic and Ground Services
IS 7879 (Part 8) : 1987	Glossary of Aeronautical and Astronautical Terms: Part 8 Power Plant

The present standard provides standard definitions of technical terms peculiar to aeronautics, astronautics and related subjects. Terms in general use in other branches of engineering are also included where they have some special relevance to aeronautics or astronautics.

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This standard consists of a series of parts, each part covering terms specific to a particular feature, type of aircraft, equipment, service, etc.

Each term has been assigned a 4-digit or 5-digit number. The first one (or two) digit, in the thousandth place, represents the part number. This part number with the following digit in the hundredth place represents the section. The last two digits represent the position of the definition within a section. Thus, the term 3405 is the 6th definition of Section 34, which is in Part 3.

Where two or more synonymous terms are in use, the term, which is favored, is given first, with the intention that it should gradually displace the others. The alternative terms are given below the preferred terms in less prominent type.

Assistance has been derived from BS: 185 'Aeronautical and Astronautical Terms' issued by the British Standards Institution, in the preparation of this Indian Standard.

The composition of the Committee responsible for the formulation of this standard will be added later.

Draft Indian Standard

GLOSSARY OF AERONAUTICAL AND ASTRONAUTICAL TERMS
PART 1 GENERAL

(*First Revision*)

1 SCOPE

This part covers the standard definitions for general aeronautical terms.

2 REFERENCES

This standard does not contain any cross reference.

3 TERMINOLOGY

SECTION 11 — GENERAL

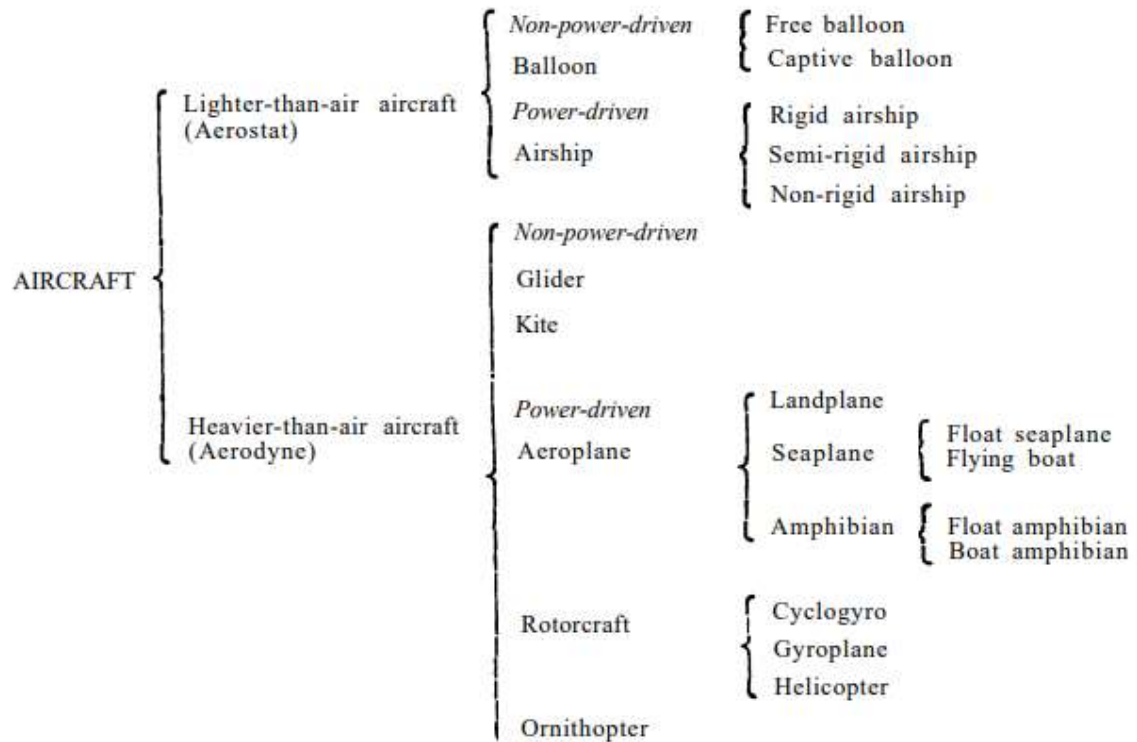
No.	Term	Definition
1101	Aeronautics	All activities relating to aerial locomotion (<i>see 1109</i>).
1102	Aerostation	The operation of lighter-than-air aircraft (<i>see 1109</i>).
1103	Aircraft Dinghy	An inflatable boat carried in an aircraft for use after alighting on water.
1104	Airworthy	Complying with the regulations prescribed by the competent authority certifying the fitness for flight of an aircraft.
1105	Altitude	The vertical distance above mean sea-level (<i>see 1118</i>).
1106	Density Altitude (Density Height)	An atmospheric density expressed as the altitude which corresponds to that density in the international standard atmosphere.
1107	Pressure Altitude	An atmospheric pressure expressed as the altitude which corresponds to that pressure in the international standard atmosphere.
1108	Altitude Chamber	A chamber in which conditions of pressure, and sometimes temperature, at altitude can be simulated for test purposes.
1109	Aviation	a) The operation of heavier-than-air aircraft (<i>see 1102</i>); and b) Synonym for 'aeronautics'.
1110	Avionics	The application of electronics to aeronautics and astronautics.
1111	Buoyancy	The vertical force on an aircraft, or other body, wholly or partly immersed in a fluid, equal to the weight of the fluid displaced.
1112	Centre of Buoyancy	The centre of gravity of the fluid displaced by an aircraft, or other body, wholly or partially immersed in a fluid.
1113	Reserve	Excess of the buoyancy of a seaplane, with its hull or floats completely immersed, over its weight.
1114	Elevation	a) The altitude of a point on the Earth's surface; and b) The angle between the observer's horizontal plane and the oblique line from the observer to a given point above him. (Abbreviation for 'angle of elevation').

No.	Term	Definition
1115	Flight Simulator	Equipment, in which certain flight conditions are simulated as far as possible, used for training aircrew to operate a given type of aircraft, or for investigating the flying characteristics of an aircraft.
1116	Gas Dynamics	The science of the flow of gases, especially when compressibility and 'real gas' effects such as dissociation or noncontinuum behavior are present.
1117	Ground, To	To prohibit an aircraft from flying.
1118	Height	The vertical distance above a specified datum (<i>see 1105</i>).
1119	Jettison	To throw overboard.
1120	Magnet Of Fluid Dynamics [Magneto Hydrodynamics (MHD) Magneto Gas Dynamics]	The study of the flow of electrically conducting fluids (for example, ionized gases) in magnetic fields.
1121	Mechanics of Fluids	<p>The science of the behavior of fluids under the action of forces. Fluids include liquids and gases, and simple fluids may be characterized by continuing deformation under the action of shear stresses. Fluid Statics is a branch of this science dealing with fluids in equilibrium. The term Fluid Dynamics is used for the branch dealing with the flow of fluids under the action of forces.</p> <p>Classically, Hydrostatics and Hydrodynamics are referred to water. However, they are now used for incompressible fluids, generally liquids. Aerodynamics classically is referred to air, usually relative motion of air with a solid body. It is sometimes used to refer to compressible fluids, usually gases.</p>
1122	Plasma	An electrically conductive state of a gas in which it is comprised of neutral particles, ionized particles and free electrons but, taken as a whole, is electrically neutral.
1123	Sortie	A flight by an aircraft for a specific purpose.
1124	Airborne Time	The period beginning at the time when the aircraft leaves the Earth's surface and ending when it again makes contact with the Earth's surface.
1125	Flight Time (Block Time Chock-To-Chock Time Buoy-To-Buoy Time)	The period beginning at the time when the aircraft starts to move under the control of the pilot and ending when it returns to rest at the end of the flight.
1126	Flying Time	The summation of the flight times.
1127	Ground Running Time	The period of engine-running time while an aircraft is at rest and/or taxiing
SECTION 12 — AIRCRAFT		
The classification of the main types of aircraft defined in this standard is diagrammatically (<i>see Annex A</i>).		
1201	Aeroplane	A power-driven heavier-than-air aircraft with supporting surfaces, which remain, fixed under given conditions of flight.
1202	Amphibian	An aircraft capable of operating from either a land or a water surface.
1203	Boat Amphibian	An amphibian of which the main body or hull is also the means of support on water.

No.	Term	Definition
1204	Landplane	An aeroplane capable of operating from a land surface.
1205	Seaplane	An aeroplane capable of operating from a water surface.
1206	Float Seaplane	A seaplane provided with floats as its means of support on water.
1207	Flying Boat (Boat Seaplane)	A seaplane of which the main body or hull is also the means of support on water.
1208	Aircraft	A vehicle designed to travel through the air outside the ground effect region.
1209	Heavier-Than-Air Aircraft (Aerodyne)	An aircraft, which derives its lift chiefly from aerodynamic forces.
1210	Lighter-Than-Air Aircraft (Aerostat)	An aircraft, which is supported chiefly by its buoyancy in air.
1211	Airship	A power-driven lighter-than-air aircraft.
1212	Non-rigid	An airship in which the internal pressure alone maintains the designed shape of the envelope.
1213	Rigid Airship	An airship having a rigid framework to maintain the designed shape of the envelope.
1214	Semi-rigid Airship	An airship having a rigid longitudinal member to distribute the load and to assist in maintaining the designed shape of the envelope.
1215	Balloon	A non-power-driven lighter-than-air aircraft.
1216	Captive Balloon	A balloon anchored or towed by a line.
1217	Free Balloon	A balloon floating freely in the air.
1218	Glider	A non-power-driven heavier-than-air aircraft.
1219	Kite	A non-power-driven heavier-than-air aircraft without controls anchored or towed by a line.
1220	Ornithopter	A heavier-than-air aircraft supported in flight chiefly by the reaction of the air on wings to which a flapping motion is imparted.
1221	Rotorcraft	A heavier-than-air aircraft, which derives lift from a rotor or rotors.
1222	Cyclogyro (PADDLE-PLANE)	A rotorcraft on which the rotor is similar in form to a paddle wheel, power-driven about a horizontal axis.
1223	Gyroplane	A rotorcraft with non-power-driven rotor(s) rotating about axes which are vertical, or nearly so, when the aircraft is in horizontal flight.
1224	Helicopter	A rotorcraft deriving lift from power-driven rotor(s) rotating about axes, which are vertical, or nearly so, when the aircraft is in horizontal flight.

Annex A

CLASSIFICATION OF MAIN TYPES OF AIRCRAFT



ANNEX B

(Foreword)

COMMITTEE COMPOSITION
WILL BE ADDED LATER

