APPENDIX C

ALPHABETICAL SUBJECT HEADINGS

CABIN CONDITIONING see AIR CONDITIONING

CABINS

CABINS, PRESSURE see CABINS, PRESSURISED

CABINS, PRESSURISED

CABLES

CABLES, COAXIAL

CABLES, ELECTRIC

CABLES, TRANSMISSION

CADMIUM

CADMIUM ALLOYS

CADMIUM-NICKEL BATTERIES see BATTERIES, NICKEL-CADMIUM

CAESIUM see CESIUM

CAGES, BEARING

CALCULATION

CALCULUS, OPERATIONAL

CALCULUS OF VARIATIONS

CALIBRATION

CALORIMETRY

CAM GEARS see GEARS, CAM

CAMBER

CAMBER, NEGATIVE

CAMBERED AEROFOIL SECTIONS see AEROFOIL SECTIONS, CAMBERED

CAMERAS

CAMERAS, HIGH SPEED

CAMERAS, TELEVISION

CAMERAS, X-RAY

CAMS

CAMSHAFTS

CANOPIES see PARACHUTES

CANOPIES, COCKPIT

CANOPIES, PARACHUTE see PARACHUTES

CANTILEVER BEAMS see BEAMS, CANTILEVER

CANTILEVER PLATES see PLATES, CANTILEVER

CAPACITORS

CAPILLARITY

CAPILLARY TUBES see TUBES, CAPILLARY

CARBIDE, CHROMIUM see CHROMIUM CARBIDE

CARBIDES

CARBON

CARBON DEPOSITION

CARBON DIOXIDE

CARBON MONOXIDE

CARBON-TUNGSTEN ALLOYS see TUNGSTEN-CARBON ALLOYS

CARPETS (GRAPHS)

CARS see AUTOMOBILES

CARTRIDGE STARTERS see STARTERS, CARTRIDGE

CARTRIDGES

CASCADES

CASCADES, TWO DIMENSIONAL

CASE HARDENED STEEL see STEEL, CASE HARDENED

CASE HARDENING see HARDENING, CASE

CASE HARDENING STEEL see STEEL, CASE HARDENING

CASINGS, COMPRESSOR see COMPRESSOR CASINGS

CAST IRON see IRON, CAST

CASTING

CASTING, ARC

CASTING, CENTRIFUGAL

CASTING, INVESTMENT

CASTING, LOST WAX see CASTING, INVESTMENT

CASTING ALLOYS see ALLOYS, CASTING

CASTINGS

CASTINGS, ALUMINIUM ALLOY

CASTINGS, MANGANESE ALLOY

CASTINGS, PLASTIC

CASTINGS, STEEL

CASTINGS, ZINC ALLOY

CATALYSIS

CATALYSTS

CATAPULTS

CATAPULTS, HYDRAULIC

CATHODE RAY OSCILLOGRAPHS see OSCILLOGRAPHS

CATHODE RAY TUBES see TUBES, CATHODE RAY

CAUSES

CAVITATION

CAVITATION FLOW see FLOW, CAVITATION

CAVITIES

CAVITY MILLING MACHINES see MILLING MACHINES, CAVITY

CEILING (PERFORMANCE)

CELLS, LECLANCHE

CELLS, PHOTOELECTRIC see PHOTOELECTRIC CELLS

CELLS, PRIMARY

CELLS, SECONDARY

CELLULOSE ACETATE

CEMENTED JOINTS see JOINTS, CEMENTED

CEMENTS

CEMENTS, ADHESIVE

CENTRE, AERODYNAMIC

CENTRE OF GRAVITY

CENTRE OF PRESSURE

CENTREBODY INTAKES see INTAKES, CENTREBODY

CENTRIFUGAL CASTING see CASTING, CENTRIFUGAL

CENTRIFUGAL COMPRESSORS see COMPRESSORS, CENTRIFUGAL

CENTRIFUGAL FORCES see FORCES, CENTRIFUGAL

CENTRIFUGAL GOVENORS see GOVENORS, CENTRIFUGAL

CENTRIFUGAL IMPELLERS see IMPELLERS, CENTRIFUGAL

CENTRIFUGAL PUMPS see PUMPS, CENTRIFUGAL

CENTRIFUGAL SUPERCHARGERS see SUPERCHARGERS, CENTRIFUGAL

CENTRIFUGES

CENTRIPETAL ACCELERATION see ACCELERATION, CENTRIPETAL

CENTRIPETAL FORCES see FORCES, CENTRIPETAL

CERAMALS see CERMETS

CERAMIC COATINGS see COATINGS, CERAMIC

CERAMIC RADOMES see RADOMES, CERAMIC

CERAMICS

CERMETS

CERTIFICATION

CESIUM

CHANNELS (HYDRODYNAMICS)

CHARACTERISTIC AERODYNAMIC TIMES see TIMES, CHARACTERISTIC

CHARACTERISTICS

CHARACTERISTICS, METHOD OF

CHARGE, ELECTROSTATIC

CHARTS

CHEMICAL ENERGY see ENERGY, CHEMICAL

CHEMICAL MILLING see MILLING, CHEMICAL

CHEMICAL REACTION see REACTION, CHEMICAL

CHEMICAL SHOCK TUBES see SHOCK TUBES, CHEMICAL

APPENDIX D

SYNOPSIS OF FACET SCHEDULES

A	4	Aviation in general
	λb	Civil (by field of service, ownership, area of service)
-	λi	Sporting
	λj	Military
	-3 \z	Other engineering structures
_	3	Aircraft (various characteristics of division)
C		Structural parts, including
	Ca	Combinations
	d	Wing
_	Cn	Tail unit
-	'p	Control surfaces
)b	Rotor
D)c	Propeller (various characteristics of division, also its parts)
E	a ·	Fuselage, body (and their parts)
E	i	Nacelle, pod
E	j	Envelope
	k	Cowling
E	m	Skin
E	n	Alighting gear (and its parts)
E	v	Flying controls (and their parts)
E	yt	Trimming controls
E	Z	Model-testing equipment (when object of study)
F	'a	Structural parts and elements
F	'm	Bodies in general
G	ła	Engine, power-plant (various characteristics of division)
G	h	Ancillary equipment .
G	u	Auxiliary systems and equipment
H	a	Machine components
H	X	Machine properties and processes
Ι		Spatial properties
Ia	a	Portion
Ιę	3	Shape
Iv	7	Dimensions
Ix	-	Arrangement
J		Performance
Jt	t	Conditions of flight

K	Flying operations, manoeuvres
La	Navigation
Lw	Air Traffic control
Ma	Aircraft instruments and aids
Mn	Maps and charts (and their characteristics)
Mr	Ground services
Mu	Personnel
Mv	Accidents and hazards
N	Aerodynamics in general
Na	Fluids
Nb	Aerodynamic entities
Nbd	Interface
Nbf	Flow (by speed, type, dimension)
Nfl	Boundary layer
Ng	Flow elements
Ni	Attributes
Nn	Fluid properties
Np	Aerodynamic forces
Oa	Control, stability, &c.
Ok	Processes and properties
Om	Aeroelasticity
Op	Buffeting
Oq	Aerodynamic reference parameters
P	Materials (by use, by constitution)
Pr	State and form of matter
Q	Manufacturing processes
Ra	Mechanics of rigid bodies
Rg	Mechanics of deformable bodies
Rt	Surface properties
$\mathbf{R}\mathbf{x}$	Porosity
Sa	Mechanical vibration (with properties and processes)
Sg	Electromagnetic wave and particle motion
Sgb	Radiations
Sh	Particles
Sm	Thermal behaviour of materials
Sr	Thermodynamic properties and processes
Ta	Structure
Td	Crystal properties (and phenomena)
Tk	Chemical properties and behaviour
Tv	Biological properties
~ *	broker trep

:c

Ua	Aviation medicine
Um	Meteorology, weather
V	General technical operations
Vk	Apparatus (including mode-testing equipment)
Vv	Recording (methods and equipment)
W	Electrical and electronic equipment
Wd	Circuits
Wf	Components
Wq	Properties
Wt	Processes
Xa	Managerial operations
Xg	Personnel operations
Xk	Research
Y	Mathematics
Υp	Methods
Yx	Computers
(Z)	General properties
(Zq)	Magnitude
(Zu)	General attributes
(1/9)	Geographical schedules
:b	Literary form
:c	Charts

SCHEDULES FOR AERODYNAMICS

N	Aerodynamics, Including fluid dynamics
Na	Fluids
Nad	Perfect, Ideal fluids
Nap	Real fluids
Naq	Gases (Aerodynamics)
Nar	Air (Aerodynamics) Other gases divide by P, Materials
Nas	Rarefied gases
Nat	Compressed gases
Nav	Liquids (Fluid dynamics)
Naw	Water, (Fluid dynamics) Other liquids divide by P. Material
Nb	Aerodynamic entities
Nbd	Gaseous interfaces, free surfaces
Nbf	Flow
NTh	By speed
Nbg Nbh	Low speed (< Mach 0.3) flow Subsonic flow
Nbj	Transonic flow
Nbk	Supersonic flow
Nbm	Hypersonic (> Mach 5) flow
	Definitions: Subsonic: No part sonic or supersonic
	Transonic: Partly subsonic, partly supersonic
	Supersonic: No part subsonic
Nc	Types of flow
Ncb	Free stream flow
Ncd	Laminar flow
Nce	Transitional flow
Ncf	Turbulent flow
Nch	Steady, continuous flow
Nci Ndb	Unsteady flow
Ndd	Rotational flow Irrotational flow
Ndf	Potential flow
Ndh	Adiabatic flow
Ndj	Diabatic flow
Ndm	Isentropic flow
Ndp	Non-isentropic flow

Neo Nee Neg Nei Nek Nep Ner Ner	Reversible flow Irreversible flow Prandtl-Meyer, Expansion flow Slip flow Free molecule flow Shear flow Cavity flow Separated flow Mixed flow Re-energised flow Divide Nbf also by shape, bracketed - e.g. Conical flow Nbf (Igr)
Nf	By dimension Add number Two dimensional flow Nf2
Nfd Nff Nfh Nfj	Non-viscous flow Viscous flow Incompressible flow Compressible flow
Nfk Nfn Nfp Nfr	Boundary layer Transition (Boundary layer) Separation (Boundary layer) Bubble (Boundary layer)
Ngc Nge Ngg Ngi Ngk Ngm Ngn Ngp Ngs Nds Nh Nhb Nhd Nhh	Flow elements Streamlines Sources Sinks Doublets Vortices Bound Vortices Vortex Filaments Vortex Sheets Vortex Streets Jets Waves Expansion waves Compression, shock waves Normal shock waves Oblique shock waves Attached shock waves

Detached shock waves Nhk Divide by S, Mechanical vibration -Nbm Mach waves e.g. Attenuation: Shock waves Nhd Sfr Attributes Velocity (Aerodynamics) Ni Nic Mass flowrate Nie Velocity gradient Nj Similarity parameters Njb Mach number Njd Critical Mach number Njf Mach number of divergence Njh Prandtl number Njj Nusselt number Njm Reynolds number Njp Froude number Nkb Profile Nkd Thickness ratio Nkf Circulation Nkh Vorticity NmHydrodynamic characteristics Nmd Spray Nn Fluid properties Nnc Density (fluids) Nng Compressibility Nni Viscosity Nnk Kinematic viscosity Nns Surface tension, capillarity Np Aerodynamic characteristics Npa Aerodynamic forces Npb Aerodynamic loads Ng Lift Nqb Non-linear lift NrDrag Nrb Profile, Zero lift drag Nrd Form drag Nrf Skin friction drag Nrh Wave drag

Induced drag, Drag due to lift Parasite, Interference drag Base drag Side force
Other loads Buffeting load Gust loads Impact loads (hydrodynamics)
Moments Pitching moments Rolling moments Yawing moments Hinge moments
Pressure Dynamic pressure Pressure distribution Centre of pressure Pressure gradient Pressure recovery
Control Later control Longitudinal control Directional control Stability (aerodynamics) Static stability Dynamic stability Longitudinal stability Phugoid stability Short-period longitudinal stability Lateral, directional stability Snaking Dutch rolling Stability derivatives Manoeuvrability (aerodynamics) Interference, interaction Stagnation Choking

Oi Ojb Ojd Ojf Ojh Ojm Ojp Ojr	Aerodynamic heating Downwash Upwash Sidewash Wake Slipstream Turbulence Surging Ground effect	
Okb Okd Okk Okm	Process and properties Suction Blowing Autorotation, Windmilling Feathering	
Om Omb On Onb	Aeroelasticity Vibration, (Aeroelasticity) Flutter Flexure-torsion flutter	Divide by Ws Wave properties
Onf	Buzz	e.g. Frequency: flutter, On W
Op	Buffeting	,
Oq	Aerodynamic reference parameters	
Oqb Oqd Oqf Oqh Oqj	Fixed wing Angle of incidence, Angle of attack Angle settings Wing-fuselage angle settings Tail-fuselage angle settings Decalage (Wing-wing)	
Oqm	Planform	Attach lid etc. directly to Cd etc. Use Oqm for
Oqp Oqr	Sweepback) Sweepforward)	generalities on planform only Add number of degrees, e.g. 45° Sweepback Sweptback 45°: Wings Cd Oqp 45 See Iibb Sweptback, Iibd Sweptforward
Oqt Oqv Oqw	Aspect ratio Taper ratio Thickness ratio	•

Oqx Oqy Oqz Osb Osg Osi	Twist Dihedral Wing area Span Quarter chord line Chord
Osj	Geometric mean chord
Osk Osn	Aerodynamic mean chord Quarter chord point
	•
Osq Oss	Aerofoil sections, Aerofoil profiles Camber
Oss	Camber
	Rotating wing
Oub	Tilt
Oud	Disc area
Ouf	Solidity
Ouh	Diameter
Oup	Pitch (Rotors)
Our	Collective pitch
Out	Cyclic pitch
Ouv	Fore-aft cyclic pitch
Ouw	Lateral cyclic pitch