The Bliss Classification Bulletin

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F O R E W O R D

As was the case with the last Bulletin, this one consists mainly of substantial additions to the BC in a number of technical fields in which the detail up to now has been deficient.

As before, the new schedules are largely those produced by the British National Bibliography as Supplementary Schedules and we are indebted to the BNB for them.

A full explanation of the main features of the schedules was given in the last Bulletin and will not be repeated here. These features are as before; the schedules are all fully faceted, their order is 'inverted' (i.e., major facets file last), the notation is ordinal and retroactive, and the detail reflects the literary warrant provided by a thorough survey of the material indexed by the BNB over the past fifteen years.

On the subject of the notation, some concern has been expressed by Mr. C. B. Freeman, Librarian of the Institute of Education, University of Hull, and a member of the British Committee for the Bliss Classification; a Note by him follows this Foreword, together with the Hon. Editor's comments.

We are again indebted to Mr. A. J. Horne of the Commonwealth Institute who has provided the detailed amendments and additions in Class O, resulting from the continuing changes in the national boundaries and status of the territories concerned.

Since the last Bulletin was published the following libraries have been reported as adopting the BC, and we are pleased to welcome them to the growing body of BC users and to invite them (as we invite all users) to contribute suggestions for the improvement of the system:

Exeter College, Oxford
Extra-Mural Department, Bristol University
Merton College, Oxford
President Kennedy Library, Institute of Administration, Zaria, Northern Nigeria
St. Edmund's College, Liverpool 8.

We are always pleased to hear from readers of the Bulletin of any other libraries whose adoption of the BC has not yet been recorded here.

Availability of copies of BC: The H. W. Wilson Company informs us that Volumes III and IV of the BC are now out of print and that the second edition of Volumes I and II will soon be so. Arrangements have been made with University Microfilms, Inc. to incorporate the BC in their O-P Book program. Xerographic reprints of the BC are now available (from University Microfilms, Inc., Ann Arbor, Michigan 48107, U.S.A.) at the following prices:

Vol. 1-2, Classes A-K	(2nd ed.)	$31.80
Vol. 3, Classes L-Z		$28.20
Vol. 4, Index		$17.60

School Edition of the BC: Last Autumn the Committee of the (British) School Library Association resolved to set aside money in its 1965-66 budget for the publication of the school abridgment on which work has been proceeding for a considerable time. The volume will be produced by conventional letterpress methods. It is not yet possible to say when publication will take place, but all the schedules are in an advanced state of preparation. Any inquiries should be addressed to the secretary of the Bliss Group: Mr. C. B. Freeman, Institute of Education, 173 Cottingham Road, Hull, Yorkshire.

Amongst correspondence arising from the last Bulletin we received a letter of appreciation regarding the schedule on oceanography. Unfortunately, in the course of moving office the letter was accidentally destroyed before a reply had been sent. We offer our apologies to the sender and should be grateful if he would kindly write again so that his letter can be answered.

J. Mills
Hon. Editor.

Aslib
3 Belgrave Square
London, S.W.1.

(N.B. For the period August 1965-July 1966 the Hon. Editor will be acting as Visiting Lecturer, The Library School, University of Maryland, College Park, Maryland 20742, U.S.A. and correspondence during this period should be addressed to him there.)

The new schedules

A note by C. B. Freeman, Librarian, Institute of Education, University of Hull

Those who have carefully perused the new schedules contained in the last Bulletin (Vol. 3, No. 1, September 1964) will have admired the skill with which highly technical subjects are analysed in great detail on fully faceted lines. They may, however, have wondered whether they could fully subscribe to the statement on page 6: 'It is emphasised here that all the features described above are perfectly consistent with the rest of the

schedules and with Bliss's view of the needs of a bibliographic classification.'

At first sight the whole of this material (especially the notation) looks very strange to anyone trained before faceting got into the examination syllabuses, but a good deal of it is not so much a departure from Bliss as an extension of Bliss. In particular, the idea that certain sub-sections may be subdivided by the notation of earlier sub-sections is familiar to us in the use of some of Bliss's special auxiliary schedules. For instance, under JN (Secondary Education), sub-sections JN,A to JN,R are followed in JNS to JNY by another 'facet' based on types of schools, and any type of school may be subdivided by the preceding notation, A to R. A fully faceted scheme is in effect an extension of this principle to a further stage of development.

Again, it must be conceded that equality in the subject hierarchy is not always expressed in Bliss by equal length of notation, and that subordination indicated by indentation of captions is not always matched by a lengthening of the notation.

Nevertheless, I must say that I should very much dislike to use a classification which departed as far from the principle of expressiveness in notation as the new schedules in the last bulletin. To say that indentation is used to indicate subordination, and that the notation is purely ordinal, is all very well, but neither the librarian nor the reader spends his life with a volume of the schedules open before him. The place where a rough idea of the hierarchy is needed is at the shelves or at the classified catalogue. Unfortunately, one cannot indent the books on the shelves or the cards in the drawer! What I particularly object to is the device mentioned on page 6 of the last Bulletin (section 5),where the notation BNZSZ, which anywhere in Bliss's own schedules would be clearly recognized as the last subdivision of the BNZS sub-section, turns out to be the containing head for the BNZT sub-section. Similar examples are to be found elsewhere-- e.g., at DRSJZ and URAPW. Imagination boggles at the thought of providing guide cards for a classified catalogue with a notation like that. And on the shelves one can only tell where a new topic begins by knowing the schedules by heart, and not by any rational principle of notation.

It seems to me that such a use of notation may be legitimate in a new classification scheme (preferably for use in closed-access libraries where only fully qualified librarians would approach the catalogue or the shelves), but that in connection with an existing classification scheme it is too much like putting new cloth on an old garment, and can only result in confusion. It would be interesting to hear the opinions of other Bliss users. Would a new edition prepared on such lines meet the needs of users?

Comment on Mr. Freeman's note by the Hon. Editor

We are grateful to Mr. Freeman for raising the above points, some at least of which must have occurred to other users of the Bulletin.

On the important general point, as to whether the new schedules are consistent with the rest of the BC, Mr. Freeman answers his own query and agrees that they are. But he has one strong reservation on how far the

'ordinal' quality of the notation should be allowed to submerge the 'hierarchical' quality (whilst agreeing that the BC notation is frequently ordinal-- i.e., shows the order clearly enough, but without showing the inclusion relations between subjects at the same time).

I sympathise with Mr. Freeman since I agree that expressive notation is helpful and would like to see as much of it as is feasible. The point of issue is the degree to which we should favour brevity at the expense of expressiveness. Mr. Freeman's general criticism of ordinal notation is that in the catalogue and on the shelves we are not assisted by the symbolism of indentation and typography to show us relations between classes and therefore are in particular need of expressive notation and should use it as far as possible.

But since notation is only expressive for part of the time, how can it be regarded as a reliable shelf and catalogue guide? It is like saying a rope is strong in parts. The truth is that all users of the library should be made aware of the simple fact that they cannot rely on class-numbers to express relations and once this is clear, we can allow the notation to perform its fundamental job-- i.e., to allow a user to locate a given subject accurately and quickly. From that point on we must depend on the helpfulness of the order and collocation (which is, on the whole, very good in BC) and the clues afforded on the shelf by shelf guides and the titles of books and in the card catalogue by guide-cards and by titles and descriptions.

Incidentally, symbolization of class relations by indentation is not impossible in the card catalogue, as Mr. Freeman implies. It can be done by the use of different widths ('cuts') of projecting tabs and different positions and colours. For example, the following represents the position of guide-tabs (looking down on the card catalogue, reading up the page):

	BNZT Amplifiers	(third or quarter cut, on right)
	BNZG Circuits by function	(half cut, in middle)
BNZG	CIRCUITS	(half cut, on left)
BNZ	E L E C T R O N I C S	(a full cut)

Mr. Freeman states (paragraph 4): 'On the shelves one can only tell where a new topic begins by knowing the schedules by heart and not by any rational principle of notation.' This implies that the normal situation in the BC is that we can tell by some notational principle. This is not so. Bliss's view of notation was that it should be as short as is feasible and that 'expressiveness' or hierarchical quality should be sacrificed if necessary in order to achieve this. Almost any page of the BC schedules will show this; for example, MF Italy, MG/MI Germany, MJ Switzerland, MKA Austria, MKK Czechoslovakia.... How can a user at the shelves know, when looking at, say MH, that Germany begins at MG and continues through MI, whereas looking at MF Italy begins and ends in MF? As stated above, we must rely on shelf guides and the titles of the books themselves to supplement the inherent helpfulness of the order in BC.

As to the feature to which Mr. Freeman particularly objects (the provision of a shorter number for a subclass than for its containing class--the very opposite of what an expressive notation is supposed to do) two points may be noted:

(i) It is certainly used already in the BC; e.g.,

AK Science in general
AZ Physical sciences in general
B Physics

CTM Chemical industries in general
CV Organic chemical industries

(ii) In the new schedules it is usually used where the containing class is more a statement of the principle of division used (what Ranganathan calls a 'pseudo-entity') than a documentary class proper, and such a pseudo-class usually has very little literature on it. It is akin to the aggregating device used in UDC (e.g., 629.132/8 Kinds of aircraft). So BNZSZ is Circuits by function and BNZT Amplifier a particular kind of circuit. Similarly, BEFGZ (in the present issue) is Functional parts of rockets and BEPJ Propulsion systems is a particular part. This means that the occasions when a user will find two such class numbers juxtaposed is likely to be very few.

However, many users of library classification tend to expect expressive notation and it is certainly nice to have it as far as possible. But to allow it to produce unnecessarily long numbers would be wrong, I think, and quite contrary to Bliss's principle. But in the case of the device to which Mr. Freeman particularly objects, if his views are shared by BC users in general the practice will be discontinued.

ADDITIONS AND CORRECTIONS

BEP F Insert new schedule for Nuclear reactors

N.B. (1) For clarity, only the symbols following BEP are given;
(2) A fuller schedule is available for those wishing to use it. Please apply to Hon. Editor.

Outline

BEP F	Reactors
FGR/FGY	Problems
FH/FHS	Equipment
FHT/FHY	Operations
FK	Reactor theory
FQ/FTY	Materials
FTZ	Parts of reactors
FW	Types of reactor
FWQ/FWT Y	By coolant
FXQ/FXT Y	By moderator
FXU/FXV Z	By fuel
FY	Heterogeneous, homogeneous reactors
G	Thermal reactors
GM	Thermal heterogeneous reactors
GP	Thermal heterogeneous uranium reactors
XZ	Intermediate reactors
Y	Fast reactors
YY	Special purpose reactors (for Research, Breeding, etc.)

Schedule

BEP F	Nuclear reactors
	Problems
FGR	Safety
FGS	Poisoning of reaction
FGT	Inert gases
FGW	Irradiation damage to components
FGX	Corrosion
FGY	Overheating
FH	Equipment
FHK	Power supply
FHM	Electrical equipment
FHN	Computer
FHP	Optical equipment
FHQ	Mechanical equipment
FHR	Pumps
FHR N	Bearings
FHS	Electromagnetic
FHT	Operations
FHT P	Siting
FHT U	Calculations
FHT V	Detection

		(Detection)
BEP	FHT W	Measurement
	FHT Y	Testing
	FHV	Chemical operations
	FHV H	Process plants
	FHV HS	Shielding
	FHW	Preparation
	FHW V	Recycling, recovery
	FHW W	Separation
	FHW WX	Solvent extraction
	FHW X	Purification
	FHX	Analysis
	FHY	Storage
	FK	Reactor theory
	FKK M	Stability
	FKM	Critical dimensions
	FKN	Neutron properties
	FKW	Fast neutrons
	FKX	Alpha particles
	FKX N	Beta particles
	FKX P	Gamma radiation
	FMM	Special reactions
	FMN	Absorption
	FMN P	Resonance
	FMN Q	Fission product formation
	FMN S	Other physical processes in reactor
	FMN Y	Heating
	FMN YY	Heat transfer
	FMN Z	Temperature
	FMP	Reactor shapes
	FQ	Reactor materials
	FQQ	Physics
	FQR	Chemistry
	FQS	Gas
	FQT	Liquid
	FQU	Solid
	FQX	Hydrogen
	FQY	Water
	FR	Heavy water
	FRT	Metals
	FRV	Salts
	FRV T	Molten
	FRW	Sodium
	FRZ	Beryllium
	FS	Uranium
	FSV	Plutonium
	FSY	Zirconium
	FTV	*Carbon dioxide*
	FTW Y	Organic compounds

(Organic compounds)

BEP FTX Graphite
FTY Other materials, A/Z

FTZ Reactor parts
FU Structure
FUV Shielding
FUV W Control system
FUV X Automatic control
FUW Cooling system
FUY Moderator
FV Fuel
FVU Fuel element
FVU T Spent fuel
FW Types of reactor
FWQ/FWT Y By coolant Divide like FQ/FTY e.g.
Gas cooled reactor BEP FWQ S
Organic compound cooled reactor BEP FWT WY
*See note at end regarding addition of Parts & Materials of Parts
FXQ/FXT Y By moderator
FXQ Graphite
Others Divide like FQ/FTY e.g.
Water moderated reactor BEP FXQ Y
*See note at end regarding addition of Parts & Materials of Parts
By fuel
FXU Uranium
FXV Plutonium
FXV Y Plutonium-Uranium
FXV Z Other materials

FY Heterogeneous reactors (irrespective of energy or purpose)
FYY Semi-heterogeneous reactors (" " " " ")
FZ Homogeneous reactors (" " " " ")

Combinations are formed by joining symbols in reverse schedule order, omitting F except in the first component: e.g.
Uranium fueled heterogeneous reactor BEP FYX U

G Thermal reactors
Divide like FGR/FXV Z
Power reactors see BMD
GM Thermal heterogeneous reactors
Divide like FGR/FXT Y e.g.
Critical dimensions for T.h.r. BEP GMK M
GP Thermal heterogeneous uranium reactors
GR/VX Problems, Materials, Parts, etc. Divide like FGR/FVU T e.g.
Critical dimensions for uranium-thermal heterogeneous reactors KM
Cooling system for u.-t.h.r. UW

BEP VZ (Cooling system for u.-t.h.r. UW
WQ/WTY Types of thermal heterogeneous uranium reactor
By coolant Divide like FWQ/FWT Y e.g.
Gas cooled u.-t.h.r. BEP WQS
By moderator
XQ Graphite
XQQ/XTY Other materials Divide like FXQ/FXT Y e.g.
Water moderated u.-t.h.r. BEP XQY
By type of fuel
XUY Natural
XUY Z Enriched
XUZ Pure
Thermal heterogeneous reactors with fuels other than uranium
XV Plutonium
XW Plutonium-uranium
XWX Other materials
XY Thermal homogeneous reactors
XYX Q/XYX TY By moderator Divide like FXQ/FXT Y e.g.
Water moderated t.h.r. BEP XYQ Y
XZ Intermediate reactors
Y Fast reactors
Reactors by purpose
YY Research reactors
Z Breeder reactors

* Combinations involving Parts and Materials of Parts

When a reactor is specified by Coolant (FWQ/FWT Y) or by Moderator (FXQ/FXT Y) qualification by Parts is preceded by a 'P' - e.g.

BEP XQY Water moderated uranium thermal heterogeneous reactor
BEP XQY P Parts
BEP XQY PUW Cooling system (from BEP FUW)

If Materials of these Parts need to be added, precede their symbols (from BEP FQ/TY) by 'N' - e.g.

BEP XQY PUW Water moderated u.-t.h.r. cooling system
BEP XQY PUW NRT Metals

But if the Material has already been stated in designating the reactor, use 'N' alone; e.g.

BEP XQY PUW N Water of Water moderated u.-t.h.r. cooling system

Examples of retroactive number building (by joining symbols in reverse schedule order):

Heterogeneous reactor - Plutonium fueled - Graphite moderated - Moderator - Critical dimensions BEP FYXV XQPUY KM
Fast reactor - Plutonium fueled - Graphite moderated - Moderator - Critical dimensions BEP YXV XQPUY KM
Thermal heterogeneous uranium reactor - Spent fuel elements - Recycling - Separation - Solvent extraction BEP VUT HWWX
Heterogeneous reactor - Uranium fueled - Deuterium moderated BEP FYXU XR

BMO Add: Nuclear energy

BNY Delete: Electric bells, Buzzers, etc.
Add reference: See also BPT W Electrical signalling systems

BOT Add note: for Audio devices, See BPT

BPS/BPT Delete existing subclasses and references and replace by:

BPS Acoustic devices, Reproduction and recording of sounds. See also BOP Recording telephone etc. See also BOB

BPS FK/BPS VX Properties, Quantities, Electronic components and circuits. Divide like BNZ FK/BNZ WY as far as applicable (see September 1964 Bulletin)

e.g.

BPS FK	Measurement
BPS FXY	Wave form
BPS FXZ	Frequency
BPS FY	Noise
BPS FZN	Non linear distortion
BPS G	Circuits
BPS GK	Apparatus
BPS GP	Testing
BPS H	Faults
BPS HB	Physical dimensions
BPS J	Shape
BPS K	Construction, Manufacture
BPS KZ	Materials
BPS M	Particular materials
BPS N	Components
BPS P	Tubes
BPS PRX	Tubes by number of electrodes
BPS PS	Tubes by type
BPS R	Solid state devices
BPS RW	Conductors
BPS RX	Insulation
BPS RY	Capacitors
BPS S	Resistors
BPS SQV	Inductors
BPS SR	Transformers
BPS SS	Switches
BPS ST	Power supply units
BPS SU	Printed circuits
BPS SV	Microminiature circuits
BPS SZ	Circuits by function
BPS T	Amplifiers
BPS TV	Attenuators
BPS TX	Converters
BPS TY	Waveform generators
BPS TZ	Oscillators
BPS V	Rectifiers
BPS VX	Time bases
BPS VY	Pulse techniques
BPS VZ	Very high frequency

	(Very high frequency)
BPS W	Microwaves
BPS WX	U.H.F.
BPS WY	S.H.F.
BPT	Audio devices
BPT C	Transducers
BPT D	Microphones
BPT E	Loudspeakers
BPT EX	Cabinets
BPT F	Earphones
BPT H	Auxiliary devices
	Systems
BPT M	Stereo
BPT MX	Cross talk
BPT NP	Sound distribution systems
BPT P	Recording and reproducing
BPT Q	Recording
BPT R	Reproducing
BPT S	Discs
BPT SU	Fine groove
BPT T	Magnetic tape and wire recording
BPT U	Tape
BPT UX	Wire
BPT V	Sound film
BPT VV	Electronic
BPT VW	Magnetic
BPT W	Electrically actuated signalling systems
BPT WX	Bells

Example of retroactive number-building: BPT PM Stereophonic recording & reproduction

N.B. If divisions from BPS are added to divisions of BPT, they should be preceded by 'A' - e.g., BPT MAG Stereo circuits

BTB Insert following schedule for Experimental Aeronautics:

BTB	Experimental studies
B	Model tests
C	Calculations
CJ	Punched cards
CM	Computers
D	Physical Phenomena
E	Instrumentation
EE	Electronic
EO	Optical. Visualization methods
EP	Interferometers
EQ	Schlieren
F	Pressure
FG	Manometers
FJ	Probes

(Probes)
BTB FL Strain gauges
FN Shock waves
FO Shock recorders
G Heat
GH Thermometry
GJ Heat transfer

J Wind tunnels
JH Design
Parts
K Working section. Test section
L Working fluid. Test fluid
LK Humidity
LM Argon
LO Water
LP Hygrometers
M Model supports
MS Stings
N Liners
O Nozzles
P Fans, Pumps
PK Filters
Q Diffusers
R Interchange collectors

S Shock tubes
T Gun tunnels
U Water tunnels
V Tanks
W Sleds, tracks

Y Flight tests
YT Telemetry

Example of retroactive combination: Shock tube nozzle BTB SO
Gun tunnel heat transfer BTB TGJ

BTX Insert new schedules for Astronautics:
BTX Astronautics
C Problems and Operations
CD Dynamics
D Trajectories, Orbits
DJ Aerodynamic problems
DJ Forces & effects
DL Drag
F Reentry into atmosphere

G Vehicles (rockets)
GM Materials
GMH Physical and chemical phenomena
GMJ Surface effects
GML Heat
GMM Thermodynamics

(Thermodynamics)
BTX GMN Combustion
GMQ Cryogenics
GMS Impact
GP Parts
GR Structural parts
GT Noses
GW Fins
GZ Functional parts & ancillaries
J Propulsion systems
JK Power supply
JL Fuel Divide like GM
JLN Combustion
JN Solid
JP Liquid
JPQ Cryogenics
JQ Special fuels
JR Injectors
JS Thrust chambers
JT Nozzles
JZ Non-conducting gas systems
L Thermochemical systems
M Nuclear powered systems
MQ Electrical propulsion systems
MR Ion beam (electrostatic)
MS Plasma
MU Photon: Solar sail
O Temperature control
OM Coating
ON Heat shield
OP Accommodation
OR Instrumentation
OT Electronics
OV Launching system
OW Landing system
P Communication system
PR/PT Radio Divide like BOR/BOT in main schedules
Q Control & guidance system
QQ Attitude control
QR External
QS Inertial
QV Tracking system
QW Optical
QX Electronic
QY Radio
QZ Telemetry
R Kinds of vehicle
RJ/RM By propulsion system Divide like BTX J/BTX M
e.g., Ion rocket BTX RMR
RU Named vehicle A/Z
e.g., BTX RU (Sputnik I) N.B. Do not classify individually named vehicles by preceding characteristics, but prefer this place.
RZ Kinds of flight

(Kinds of flight)

BTX S — Near space
T — Terrestrial orbit
TG — Earth satellite
U — Moon
V — Planets
VT — Particular planets Divide like DF in main schedules, e.g., Mars BTX VTM
VU — By purpose
By nature of load
VW — None
W — Instruments
WW — Organisms
WWD — Biological requirements
WWF — Mechanical hazards
WWG — Non-gravity
WWH — Acceleration
WWL — Radiation hazards
WX — Animals
WXD/L — Divide like WWD/L
WY — Individual animals Divide like G in main schedules
X — Human beings
XD/XL — Divide like WWD/L
Z — Flying saucers

Example of retroactive number-building: BTX TGD Earth satellite orbits

CGF — Add: Semi-microanalysis
CGG — Delete existing heading and references and replace by:
CGG — Microanalysis, Microchemical analysis
see also Chemical microscopy CAV

CGG G — Gravimetric analysis
CGG J — Vaporimetry
CGG L — Electrolytic
CGG N — Titrimetry
CGG P — Spot tests

CGP — Delete existing subclasses and replace by:

CGP — Spectrum analysis
CGP E — Emission
CGP F — Source Units
CGP G — Arc
CGP H — Spark
CGP J — Flame
CGP L — Absorption
CGP LJ — Absorption flame photometry
CGP M — Infra-red
CGP N — Raman
CGP O — Optical
CGP P — Ultra-violet

(Ultra-violet)
CGP Q X-ray analysis
CGP R Fluorescent analysis
CGP RQ X-ray fluorescence
CGP S Nuclear magnetic resonance analysis
CGP T Electron spin resonance
CGP U Radioactivation
CGP V Gamma spectroscopy
CGP W Coincidence spectrometry
CGP X Photoneutron spectrometry

CGY Add subclasses:

CGY Chromatography
CGY G Partition
CGY I Ion exchange
CGY K Gas
CGY N Thin layer

DSB/D Delete existing subclasses and references and replace by:

DSB Physics of the atmosphere
DSB F Mathematical physics
DSB J Aerodynamics
DSB K Particle dispersion

DSB N Wave motion
DSB NS Power spectra
DSB X Radioactivity

DSC Chemistry of the atmosphere
DSC P Photochemistry
DSC R Radiochemistry
DSC V Special substances: Dust, suspensions, impurities
DSC W Add chemical symbol
DSD Observation
DSD C Reports
DSD D Equipment
DSD E Maps
DSD F Tables
DSD H Computers
DSD J Radar
DSD K Telecommunications
DSD M Stations
DSD O Vehicles
DSD P Weather ships
DSD Q Air vehicles
DSD R Balloons
DSD RR Radiosondes
DSD S Heavier-than-air aircraft
DSD T Parachutes
DSD U Rockets
DSD V Space vehicles

		(Space vehicles)
DSD W		Tracer techniques
DSD X		Special materials
		Add chemical symbol to DSD X
DSD Y		Instruments
MFZ	Change to:	Malta, former British colony
ONS B	Change to:	Karachi (i.e., delete 'capital')
ONS F	Insert:	Islamabad, capital. Alternative is ONT X
ONT X	Insert:	Islamabad Alternative is ONS F
ORW	Change to:	Aden, British colony, and the Protectorate of S. Arabia
ORW X	Insert:	Federation of S. Arabia, formerly Federation of Arab Amirates of the South
OUK	Change to:	Kenya, former British colony and protectorate
OUM	Change to:	Uganda, former British protectorate
OUN	Change to:	Kampala, capital; Entebbe, Masindi
OUN B	Insert:	Buganda
OUN T	Insert:	Tanzania
OUO	Change to:	Tanganyika, former British trust territory
OUP	Change to:	Zanzibar, former British protectorate
OUU	Change to:	Rhodesia, Zambia and Malawi, formerly British Central Africa, then Federation of Rhodesia and Nyasaland. Includes North and South Rhodesia together.
OUV	Change to:	Malawi, formerly Nyasaland
OUY	Change to:	Zambia, formerly Northern Rhodesia
OVH	Delete existing	heading and move Basutoland to OVO
OVM	Delete existing	heading and move Swaziland to OVP
OVN W	Insert:	Witwatersrand... (heading moved from OVO)
OVN X	Insert:	Pretoria ... (heading moved from OVP)
OVO	Change to:	Basutoland
OVP	Change to:	Swaziland
OVQ	Change to:	Bechuanaland Protectorate
OVQ W	Insert:	Vryburg ... (heading moved from OVR)
OVR	Change to:	Basutoland, Bechuanaland Protectorate and Swaziland (together), former British High Commission Territories in South Africa
OXS	Change to:	Gambia, formerly British colony

A/Z INDEX

N.B. For convenience in ascertaining quickly whether a particular term has been included, all entries in the A/Z index are now given in one sequence. But no A/Z entries are given for amendments and additions to classes M/O, since these are self-evident from the schedule instructions under those classes.

Deuterium (Nuclear reactor materials)	BEP FR
Diffusers (Wind tunnels)	BTB Q
Discs (Audio devices)	BPT S
Drag (Astronautics)	BTX DL
Dust (Chemistry of atmosphere)	DSC V
Dynamics (Astronautics)	BTX CD
Earphones (Audio devices)	BPT F
Electric bells (formerly BNY)	BPT WX
Electrical propulsion (space vehicles)	BTX MQ
Electrical signalling (Audio devices)	BPT W
Electrolytic analysis	CGG L
Electromagnetic pumps (Nuclear reactors)	BEP FHS
Electron spin resonance (Spectrum analysis)	CGP T
Electronic sound film	BPT VV
Emission (Spectrum analysis)	CGP E
Enriched fuel nuclear reactors	BEP XUY Z
Entry, Atmospheric (Astronautics)	BTX F
Fans (Wind tunnels)	BTB P
Fast reactors	BEP Y
Filters (Wind tunnels)	BTB PK
Fine groove discs (Audio devices)	BPT SU
Fins (Space vehicles)	BTX GW
Fission product formation (Nuclear reactors)	BEP FMN Q
Flame emission (Spectrum analysis)	CGP J
Flame photometry (Absorption, Spectrum analysis)	CGP LJ
Flight tests (Aeronautics)	BTB Y
Fluorescent analysis (Spectrum analysis)	CGP R
Frequency (Acoustic devices)	BPS FXZ
Fuels (Nuclear reactors)	BEP FV
Fuels (Space vehicles)	BTX JL
Gamma radiation (Nuclear reactors)	BEP FKX P
Gamma spectroscopy	CGP V
Gas chromatography	CGY K
Gas cooled reactors	BEP FWQ S
Gases (Nuclear reactor materials)	BEP FQS
Graphite (Nuclear reactor materials)	BEP FTX
Graphite moderated reactors	BEP FXQ
Gravimetric analysis (Microanalysis)	CGG G
Gun tunnels (Aeronautics)	BTB T
Heat, Aerodynamic (Astronautics)	BTX GML
Heat measurement (Aeronautical experiments)	BTB GH
Heat transfer (Aeronautical experiments)	BTB GJ
Heat transfer (Nuclear reactors)	BEP FMN YY
Heating (Nuclear reactors)	BEP FMN Y
Heavy water (Reactor materials)	BEP FR
Heterogeneous reactors	BEP FY
Homogeneous reactors	BEP FZ
Humidity (Test fluids, Wind tunnels)	BTB LK
Hydrogen (Nuclear reactor materials)	BEP FQX
Hygrometers (Test fluids, Wind tunnels)	BTB LP

Impact (Space vehicles, Astronautics)	BTX GMS
Impurities (Chemistry of atmosphere)	DSC V
Inductors (Acoustic devices)	BPS SQV
Inert gases (Nuclear reactors)	BEP FGT
Infra-red absorption (Spectrum analysis)	CGP M
Injectors (Space vehicles, Propulsion systems)	BTX JR
Instrumentation (Aeronautical experiments)	BTB E
Insulation (Acoustic devices)	BPS RX
Interchange collectors (Wind tunnels)	BTB R
Interferometry (Aeronautical experiments)	BTB EP
Intermediate reactors	BEP XZ
Ion exchange (Chromatography)	CGY I
Ion propulsion (Space vehicles)	BTX MR
Irradiation damage (Nuclear reactors)	BEP FGW
Liners (Wind tunnels)	BTB N
Liquid fuels (Space vehicles)	BTX JP
Liquids (Reactor materials)	BEP FQT
Loudspeakers (Audio devices)	BPT E
Magnetic sound film	BPT VW
Magnetic tape and wire recording	BPT T
Mathematical physics of atmosphere	DSB F
Metals (Reactor materials)	BEP FRT
Microanalysis (Chemistry)	CGG
Microminiature circuits (Acoustic devices)	BPS SV
Microphones (Audio devices)	BPT D
Microwaves (Acoustic devices)	BPS W
Models (Aeronautical research)	BTB B
Moderators (Nuclear reactors)	BEP FUY
Natural fuel (Nuclear reactors)	BEP XUY
Neutrons (Nuclear reactors)	BEP FKN/W
Noise (Acoustic devices)	BPS FY
Non-conducting gas propulsion (Space vehicles)	BTX JZ
Non-linear distortion (Acoustic devices)	BPS FZN
Noses (Space vehicles)	BTX GT
Nozzles (Propulsion systems, Space vehicles)	BTX JT
Nozzles (Wind tunnels)	BTB O
Nuclear magnetic resonance analysis	CGP S
Nuclear propulsion (Space vehicles)	BTX M
Nuclear reactors	BEP F
Optical absorption (Spectrum analysis)	CGP O
Optical equipment (Nuclear reactors)	BEP FHP
Optical instrumentation (Aeronautical experiments)	BTB EO
Orbits (Astronautics)	BTX D
Organic compounds (Reactor materials)	BEP FTW Y
Oscillators (Circuits, Acoustic devices)	BPS TZ
Overheating (Nuclear reactors)	BEP FGY
Parachutes (Atmosphere observations)	DSD T
Particle dispersion (Atmosphere)	DSB K
Partition (Chromatography)	CGY G

Photochemistry of atmosphere	DSC P
Photoneutron spectrometry	CGP X
Physics (Nuclear reactor materials)	BEP FQQ
Physics of atmosphere	DSB
Plasma propulsion (Space vehicles)	BTX MS
Plutonium (Reactor materials)	BEP FSV
Plutonium reactors	BEP FXV
Plutonium thermal heterogeneous reactors	BEP XV
Plutonium-uranium reactors	BEP FXV Y
Plutonium-uranium thermal heterogeneous reactors	BEP XW
Poisoning of reaction (Nuclear reactors)	BEP FGS
Power reactors (Electrical engineering)	BMO
Power spectra (Wave motion, Atmosphere)	DSB NS
Power supply (Nuclear reactors)	BEP FHK
Power supply (Space vehicles)	BTX JK
Power supply units (Acoustic devices)	BPS ST
Pressure tests (Aeronautical research)	BTB F
Printed circuits (Acoustic devices)	BPS SU
Probes (Pressure tests, Aeronautics)	BTB FJ
Propulsion systems (Space vehicles)	BTX J
Pulse techniques (Acoustic devices)	BPS VY
Pumps (Nuclear reactors)	BEP FHR
Pumps (Wind tunnels)	BTB P
Punched cards (Aeronautical research)	BTB CJ
Pure fuel nuclear reactors	BEP XUZ
Purification (Nuclear reactors)	BEP FHW X
Radar (Atmosphere observation)	DSD J
Radioactivation (Chemical analysis)	CGP U
Radiochemistry of atmosphere	DSC R
Radiosondes (Atmosphere observation)	DSD RR
Raman absorption (Spectrum analysis)	CGP N
Reactor materials	BEP FQ
Reactor shapes	BEP FMP
Reactor theory	BEP FK
Reactor types	BEP FW/BEP Z
Reactors, Nuclear	BEP F
Recording and reproducing systems (Audio devices)	BPT P
Recording of sounds	BPS
Recovery (Nuclear reactors)	BEP FHW V
Rectifiers (Circuits, Acoustic devices)	BPS V
Recycling (Nuclear reactors)	BEP FHW V
Reentry (Astronautics)	BTX F
Reproduction of sounds	BPS
Research reactors	BEP YY
Resistors (Acoustic devices)	BPS S
Resonance (Nuclear reactors)	BEP FMN P
Rockets (Astronautics)	BTX G
Rockets (Atmosphere observation)	DSD U
S.H.F. (Acoustic devices)	BPS WY
Safety (Nuclear reactors)	BEP FGR
Salts (Reactor materials)	BEP FRV
Schlieren methods (Aeronautical experiments)	BTB EQ

Semi-heterogeneous reactors	BEP FYY
Semi-microanalysis (Chemistry)	CGF
Shielding (Chemical processing, Nuclear reactors)	BEP FHV HS
Shielding (Reactor parts)	BEP FUV
Shock tubes (Aeronautical research)	BTB S
Shock waves (Aeronautical research)	BTB FN
Siting (Nuclear reactors)	BEP FHT P
Sleds (Aeronautical experiments)	BTB W
Sodium (Reactor materials)	BEP FRW
Solid fuels (Space vehicles)	BTX JN
Solid state devices (Acoustic devices)	BPS R
Solids (Reactor materials)	BEP FQU
Solvent extraction (Nuclear reactors)	BEP FHW WX
Sound distribution systems	BPT NP
Sound films (Audio devices)	BPT V
Source emission units (Spectrum analysis)	CGP F
Space vehicles (Astronautics)	BTX G
Space vehicles (Atmosphere observation)	DSD V
Spark emission (Spectrum analysis)	CGP H
Spent fuel (Nuclear reactors)	BEP FVU T
Spot tests (Chemical analysis) (formerly CGG)	CGG P
Stability (Nuclear reactors)	BEP FKK M
Stereo systems (Audio devices)	BPT M
Stings (Wind tunnels)	BTB MS
Storage (Nuclear reactors)	BEP FHY
Strain gauges (Aeronautical research)	BTB FL
Super high frequency (Acoustic devices)	BPS WY
Surface effects (Astronautics)	BTX GMJ
Suspensions (Chemistry of atmosphere)	DSC V
Switches (Acoustic devices)	BPS SS
Tanks (Aeronautical experiments)	BTB V
Tape recording (Audio devices)	BPT U
Telecommunications (Atmosphere observation)	DSD K
Telemetry (Aeronautics, Experimental)	BTB YT
Temperature (Nuclear reactors)	BEP FMN Z
Test fluids (Wind tunnels)	BTB L
Test section (Wind tunnels)	BTB K
Testing (Nuclear reactors)	BEP FHT Y
Thermal heterogeneous reactors	BEP GM
Thermal heterogeneous uranium reactors	BEP GP
Thermal homogeneous reactors	BEP XY
Thermal reactors	BEP G
Thermochemical propulsion systems (Space vehicles)	BTX L
Thermodynamic effects (Astronautics)	BTX GMM
Thermometry (Aeronautical research)	BTB GH
Thin layer chromatography	CGY N
Thrust chambers (Space vehicles)	BTX JS
Time bases (Circuits, Acoustic devices)	BPS VX
Titrimetry (Chemical microanalysis)	CGG N
Tracer techniques (Atmosphere observation)	DSD W
Tracks (Aeronautical experiments)	BTB W
Trajectories (Astronautics)	BTX D

Transducers (Audio devices)	BPT C
Transformers (Acoustic devices)	BPS SR
Tubes (Acoustic devices)	BPS P
U.H.F. (Acoustic devices)	BPS WX
Ultra high frequencies (Acoustic devices)	BPS WX
Ultra violet absorption (Spectrum analysis)	CGP P
Uranium (Reactor materials)	BEP FS
Uranium reactors	BEP FXU
V.H.F. (Acoustic devices)	BPS VZ
Vaporimetry (Microanalysis)	CGG J
Very high frequencies (Acoustic devices)	BPS VZ
Visualization methods (Aeronautical research)	BTB EO
Water (Reactor materials)	BEP FQY
Water (Test fluids, Wind tunnels)	BTB LO
Water moderated reactors	BEP FXQ Y
Water tunnels (Aeronautical research)	BTB U
Wave motion (Atmosphere)	DSB N
Waveform generators (Circuits, Acoustic devices)	BPS TY
Weather ships	DSD P
Wind tunnels	BTB J
Wire recording (Audio devices)	BPT UX
Working fluid (Wind tunnels)	BTB L
Working section (Wind tunnels)	BTB K
X-ray analysis (Spectrum analysis)	CGP Q
X-ray fluorescence (Spectrum analysis)	CGP RQ
Zirconium (Reactor materials)	BEP FSY