NATURAL ENVIRONMENT RESEARCH COUNCIL

INSTITUTE of HYDROLOGY

REPORT NO. 1 JUNE 1970

PUBLICATIONS HANDBOOK

GUIDE TO PREPARATION OF MANUSCRIPTS FOR PUBLICATION

PAPERS FOR SUBMISSION TO EXTERNAL JOURNALS
INSTITUTE OF HYDROLOGY REPORTS

BY
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INSTITUTE OF HYDROLOGY
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BERKSHIRE

CONTENTS

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PAPERS FOR SUBMISSION TO EXTERNAL JOURNALS

INSTITUTE OF HYDROLOGY REPORTS

1. POINTS FOR AUTHORS

DRAFTS SHOULD BE SUBMITTED TO THE REFEREE IN THE FOLLOWING FORMAT

1. TEXT

NOTE ON PAPER SIZES: A4 is 11.69 in x 8.27 in and the printing area is $9\frac{3}{4}$ in x $6\frac{1}{2}$ in

i Must be typed in double spacing, preferably on A4 sheets

ii A short abstract should be prepared

iii References should be set out as in Appendix I
Detail is to be as complete as possible
References within the text should appear as follows:
..... maps prepared last year (Rodda, 1967)

iv Use metric units (with the equivalent British units in brackets)

v Appendices should be as independent as possible from the main text

vi A selected list of units, conversions, and abbreviations is provided in Appendix II

vii Make use of

Roget's Thesaurus

Fowler's Modern English Usage
The Authors' and Printers' Dictionary
Business Report Writing (Sidney)
which are available in the Library

2. DIAGRAMS

i Should be produced on A4 size or in size suitable for exact reduction to A4 size. If the diagram cannot be made to conform to this requirement, then consult the publications officer re arranging a fold out or suitable arrangement in the text

ii Should it be essential to place a figure within the text (as distinct from being on a full page) this should be clearly stated on the manuscript. Required dimensions of figure must be indicated precisely

iii Line diagrams should be prepared on art paper or tracing paper (preferably using a rapidograph pen), or be submitted as dyeline copies. Lettering should be sufficiently large such that on reduction to A4 size, the height is not less than 1/12 in, ie for 3:1 reduction, the height should be ¼ in on the artwork

iv Captions should be brief. Figures are usually displayed to assist the understanding of the text

v Photographs should be submitted as 10 in x 8 in black and white glossy prints

2. POINTS FOR EDITORS

DRAFTS SHOULD BE PROCESSED AS FOLLOWS

1. EDITING (GENERAL)

i Correct mistakes of fact and language, but

ii Do not attempt to change style or "rewrite" in own style, however

iii Always consult author if it is considered that major changes are required

iv Check with author concerning doubts on fact

v Above all concentrate and be patient - this will minimise errors

2. FORMAT

(a) For journals, follow rigidly the instructions laid down by the editors of the journal concerned. Copies of Instructions to Authors for several periodicals are available from the Library

(b) For Institute of Hydrology Reports, prepare masters for photolitho reproduction as follows

i Cover as in Appendix III

ii Half-title page (duplication of cover)

iii Contents

iv Title, abstract and beginning of text on Page 1 as in Appendix IV

v Text to be back to back

vi Sections to be numbered and section headings (in capitals) to be centred

vii Tables, plates and figures may be placed within the text, but if too copious these may be more conveniently placed at the end immediately before the appendices. One of the better systems is to place either tables or figures (whichever requires least space) in the text, and the other at the end

viii Tables, plates and figures which appear at the end of the text are usually more conveniently placed on single sheets for easy reference to the text

ix References should begin on a separate page and be of the style set out in Appendix I. References within the text should appear as follows:

..... maps prepared last year (Rodda, 1967)

x Appendices should be prepared as independent sections, capable of being understood with as little reference as possible to the main text. Appendices should always appear after all parts of the main text

xi The current list of Institute of Hydrology Reports must appear on the inside back cover of each Report

(c) Generally, the following practices apply,

i Italics are to be used in the text for latin names, and in the references for journal title and volume number. Abbreviations of some journals from the World List of Periodicals are listed in Appendix VI

ii When abbreviating weights and measures, do not use full stops
eg. cal cm in kg lb mi
See Appendix II for a selected list of units, conversions, and abbreviations

iii Decimal points must be preceded by zero, ie 0.079 not .079

iv Emphasis, if it must be given, should be by underlining and not by italics or capitals

v Hyphens should only be used to aid understanding. Composite nouns may be joined where appearances permit. See Fowler's Modern English Usage, p.225

vi On subjunctives, see Fowler's Modern English Usage, p.595

vii Refrain from using the term "etc"

3. TYPIST (FOR INSTITUTE OF HYDROLOGY REPORTS)

i Follow exactly the style shown in Appendices I, II and IV, and familiarise with symbols and abbreviations listed in Appendix V

ii Use alternate wide LH and RH margins respectively for odd and even numbered pages

iii Margins for masters must be:
wide margin 1 in from edge of page
narrow margin ¾ in from edge of page
margin from top of page 1 in
margin from bottom of page ¾ in

iv Page numbers are to be typed ½ in from top of page always in the centre of the sheet

v Use 1½ spacing between lines of text, and 2½ between paragraphs

vi Tables: use no vertical lines if possible and the minimum of horizontal lines

4. PROOF READING (GENERAL)

i To correct master, mark a photocopy of it (in red), or use tracing paper to cover the master (marking lightly in pencil), or use non-reproducing blue pencil directly on the master. (Note that red and black photograph far more clearly than green or blue)

ii Use standard symbols for correcting proofs/masters ie those in British Standard 1219. eg Appendix V

iii Avoid "editing" a proof or master; keep further corrections to a minimum as this will ensure that

(a) proofs/masters will not be susceptible to further mistakes being made

(b) masters will retain a high printing quality

5. PREPARATION FOR PRINTER (GENERAL)

i Prepare a mock-up as a guide to printer and furnish as a sample, a copy of a previous Report/Paper

ii Ensure that printer uses identical colour and design for cover for all I.H. Reports

iii Contact printer prior to handing over masters in order to arrange priority for printing, to ascertain expected date of completion, and to state the quantity of the publication required

ACKNOWLEDGMENT

The assistance of Mrs. Rosemary Rumsby in preparing this report is most appreciated.

APPENDIX I

REFERENCES

(To be given in the form

Author [1], Initials. Year of publication [2].
Title of paper. Journal (italics) [34], Vol.no. (italics) [56],
pp.)

Bell,J.P. and Eeles,C.W.O. 1967. Neutron random counting error in terms of soil moisture for non linear calibration curves. *Soil Sci., 103,* 1-3.

Bell,J.P. and McCulloch,J.S.G. 1966. Soil moisture estimation by the neutron scattering method in Britain. *J.Hydrol., 4,* 254-263.

Bell,J.P. and McCulloch,J.S.G. 1968. Soil moisture estimation by the neutron method in Britain - a further report. *J.Hydrol., 7,* 415-433.

Rodda,J.C. 1967. The rainfall measurement problem. *Proc.genl Assemb.int.Ass. scient.Hydrol., Berne,* 216-231.

Rodda,J.C. 1969. Climate, meteorology and rainfall. *Man.Brit.Wat.Engng Pract., 4th ed., 2,* 21-33.

Rodda,J.C. 1969. The assessment of precipitation. The flood hydrograph, in *Water, Earth and Man* (Ed., R.Chorley), Methuen,London, 130-134, 405-418.

Stewart,J.B. and Oliver,S.A. (In press). Evaporation from forests. *Aspects of Forest Climate, Aberystwyth Symp.agric.Meteorol., 13, 1970.*

1. In the case of joint authors, list alphabetically in order of first named author, then second named author and so on
2. If paper not yet published, only refer if it is known in which publication it will appear. Never refer to "private communications"
3. If the paper appears in a single volume, give the title of the volume and the name of editor in italics
4. Foreign scripts must not be used, see the World List of Periodicals for translation

5. Do not use Roman Numerals for volume numbers; only use issue number if each issue begins with Page 1

6. References to books must include publisher and city, in that order

APPENDIX II

RECOMMENDED UNITS FOR HYDROMETEOROLOGICAL ELEMENTS. COMMONLY USED ALTERNATIVE UNITS AND CORRESPONDING FACTORS FOR CONVERSION TO RECOMMENDED UNITS ARE ALSO SHOWN

Element (1)	Recommended unit (2)	Alternative units (3)	Factor for conversion from alternative unit (3) to recommended unit (2) (4)
Water-level (stage)	cm	ft	30.5
Stream discharge	m^3/sec	cfs	0.0283
Unit discharge	$m^3/sec/km^2$	cfs/mi^2	0.0103
Volume (storage)	m^3	ft^3	0.0283
		ac-ft	1230
		cfs-days	2450
Runoff depth	mm	in	25.4
Precipitation	mm	in	25.4
Precipitation intensity	mm/hr	in/hr	25.4
Snow depth	cm	in	2.54
Snow cover, area	%		
Water equivalent of snowpack	mm	in	25.4
Ice thickness	cm	in	2.54
Evaporation	mm	in	25.4
Evapotranspiration	mm	in	25.4
Soil moisture	%, volume	%, weight (conversion depends on density)	
Soil-moisture deficiency	mm	in	25.4
Sediment discharge	MT/day	tons/day	0.907
Sediment concentration	kg/m^3	ppm (conversion depends on density)	
Chemical quality	ppm		
Energy (heat)	cal (gramme)	Btu	252
Radiation	cal/cm^2	kwh/cm^2	0.86
Radiation intensity	$cal/cm^2/min$	ly/min	
Sunshine	% possible	hrs (conversion depends on possible sunshine)	
Temperature	^oC	^oF	5/9 (^oF-32)
Wind speed	knots	mi/hr	0.868
		m/sec	1.943

Element (1)	Recommended unit (2)	Alternative units (3)	Factor for conversion from alternative unit (3) to recommended unit (2) (4)
Relative humidity	%		
Vapour pressure	mb	mm Hg	1.333
		in Hg	33.86
Atmospheric pressure	mb	mm Hg	1.333
		in Hg	33.86
Area	km^2	mi^2	2.59
		ac	0.00405
		ha	0.01

NOTE: Abbreviations used in the table are as follows:

ac - acre
Btu - British thermal unit
^{o}C - degrees Celsius
cfs - cubic feet per second
cm - centimetre
^{o}F - degrees Fahrenheit
ft - foot
ha - hectare
Hg - mercury
hr - hour
in - inch
kg - kilogram
km - kilometre
ly - langley
m - metre
mb - millibar
mi - mile
min - minute
mm - millimetre
MT - metric ton
ppm - parts per million by weight
sec - second

APPENDIX III

NATURAL ENVIRONMENT RESEARCH COUNCIL

INSTITUTE of HYDROLOGY

REPORT No 7 JUNE 1969

INSTALLATION OF ACCESS TUBES AND CALIBRATION OF NEUTRON MOISTURE PROBES

by

C.W.O. Eeles

INSTITUTE OF HYDROLOGY
HOWBERY PARK
WALLINGFORD
BERKSHIRE

APPENDIX IV

INSTITUTE OF HYDROLOGY

Report No. 7 June 1969

INSTALLATION OF ACCESS TUBES AND CALIBRATION OF NEUTRON MOISTURE METERS

by C. W. O. Eeles

ABSTRACT

The neutron back-scattering method has very great advantages in the determination of soil moisture content. The results obtained, however, can be easily rendered invalid by faulty calibration methods and incorrect installation of access tubes. This report describes the routine method developed at the Institute in an attempt to overcome these problems.

1. INTRODUCTION

The use in the United Kingdom of the neutron moisture meter has become firmly established in research which requires the determination of changes in soil moisture content.

The neutron scattering equipment consists of a probe containing a source of high energy neutrons with a detection system for low energy neutrons, and a scaler or ratemeter. The neutron source is usually Americium-Beryllium which has a low gamma output, a long half-life and emits fast neutrons with an energy of the order of 3 MeV. The source and detector are lowered into an access tube in the ground and a fast neutron flux is set up in the soil. The hydrogen nuclei, which are present mainly in the molecules of soil water, moderate the fast neutrons by elastic collisions to the thermal energy that these particles would have at ambient temperature. The thermal ("slow") neutrons form a 'cloud' which stabilises in about a microsecond, and the rate at which back-scattered thermal neutrons arrive at the detector can be related directly to the moisture content of the soil by either field or theoretical calibration.

APPENDIX V

NOTES ON THE USE OF SYMBOLS FOR CORRECTING PROOFS

All corrections should be distinct and made in ink in the margins; marks made in the text should be those indicating the place to which the correction refers.

Where several corrections occur in one line, they should be divided between the left and right margins, the order being from left to right in both margins and the individual marks should be separated by a concluding mark.

When an alteration is desired in a character, word, or words, the existing character, word, or words should be struck through and the character to be substituted written in the margin, followed by a concluding stroke (/).

Where it is desired to change one character only to a capital letter, the word 'cap' should be written in the margin. Where, however, it is desired to change more than one character, or a word or words, in a particular line, to capitals, then one marginal reference 'caps' should suffice, with the appropriate symbols made in the text as required.

Three periods or full stops (constituting an ellipsis, see No. 61) should be used to indicate an omission, except where the preceding sentence has been concluded, in which case *four* full stops should be inserted, the first of which should be close up to the preceding word.

Normally, only matter actually to be inserted or added to the existing text should be written on the proof. If, however, any comments or instructions are written on the proof, they should be encircled and preceded by the word PRINTER (in capitals and underlined).

SYMBOLS FOR CORRECTING PROOFS

No.	Instruction	Textual mark	Marginal mark
1	Correction is concluded	None	/
2	Insert in text the matter indicated in margin	⋀	*New matter followed by* /

No.	Instruction	Textual mark	Marginal mark
3	Delete	Strike through characters to be deleted	
4	Delete and close up	Strike through characters to be deleted and use mark 21	
5	Leave as printed	.... under characters to remain	
6	Change to italic	—— under characters to be altered	
7	Change to even small capitals	═══ under characters to be altered	
8	Change to capital letters	═══ under characters to be altered	
9	Use capital letters for initial letters and small capitals for rest of words	═══ under initial letters and ═══ under the rest of the words	
10	Change to bold type	~~~ under characters to be altered	
11	Change to lower case	Encircle characters to be altered	
12	Change to roman type	Encircle characters to be altered	
13	Wrong fount. Replace by letter of correct fount	Encircle character to be altered	
14	Invert type	Encircle character to be altered	
15	Change damaged character(s)	Encircle character(s) to be altered	
16	Substitute or insert character(s) under which this mark is placed, in 'superior' position	/ through character or ⟋ where required	 *under character* (eg. )
17	Substitute or insert character(s) over which this mark is placed, in 'inferior' position	/ through character or ⟋ where required	 *over character* (eg. )
18	Underline word or words	—— under words affected	
19	Use ligature (eg. ffi) or diphthong (eg. œ)	⌒ enclosing letters ⌣ to be altered	⌒ *enclosing* ⌣ *ligature or diphthong required*

No.	Instruction	Textual mark	Marginal mark
20	Substitute separate letters for ligature or diphthong	/ through ligature or diphthong to be altered	*write out separate letters followed by /*
21	Close up - delete space between characters	⁀ linking characters	⁀
22	Insert space *	⅄	#
23	Insert space between lines or paragraphs *	> between lines to be spaced	#
24	Reduce space between lines *	(connecting lines to be closed up	less #
25	Make space appear equal between words	/ between words	eq #
26	Reduce space between words *	/ between words	less #
27	Add space between letters *	//// between tops of letters requiring space	letter #
28	Transpose	⌊⌉ between characters or words, numbered when necessary	trs
29	Place in centre of line	Indicate position with ⌜ ⌝	centre
30	Indent one em	⊐	□
31	Indent two ems	⊏	□□
32	Move matter to right	⊐ at left side of group to be moved	⊐
33	Move matter to left	⊏ at right side of group to be moved	⊏
34	Move matter to position indicated	[ ] at limits of required position	move
35	Take over character(s) or line to next line, column or page	⊏	take over
36	Take back character(s) or line to previous line, column or page	⊐	take back
37	Raise lines *	⌐¬ over lines to be moved ⌐¬ under lines to be moved	raise
38	Lower lines *	⌐¬ over lines to be moved under lines to be moved ⌐¬	lower
39	Correct the vertical alignment	‖	‖

* Amount of space and/or length of re-spaced line may be included

No.	Instruction	Textual mark	Marginal mark
40	Straighten lines	—— through lines to be straightened ——	—— ——
41	Push down space	Encircle space affected	⊥
42	Begin a new paragraph	[before first word of new paragraph	n.p
43	No fresh paragraph here	⁀ between paragraphs	run on
44	Spell out the abbreviation or figure in full	Encircle words or figures to be altered	spell out
45	Insert omitted portion of copy	ʎ	out see copy
	NOTE. The relevant section of the copy should be returned with the proof, the omitted portion being clearly indicated.		
46	Substitute or insert comma	/ through character or ʎ where required	,/
47	Substitute or insert semi-colon	/ through character or ʎ where required	;/
48	Substitute or insert full stop	/ through character or ʎ where required	⊙
49	Substitute or insert colon	/ through character or ʎ where required	:/
50	Substitute or insert interrogation mark	/ through character or ʎ where required	?/
51	Substitute or insert exclamation mark	/ through character or ʎ where required	!/
52	Insert parentheses	ʎ or ʎ ʎ	(/)/
53	Insert (square) brackets	ʎ or ʎ ʎ	[/]/
54	Insert hyphen	ʎ	/-/
55	Insert en (half-em) rule	ʎ	en
56	Insert one-em rule	ʎ	em
57	Insert two-em rule	ʎ	2 em
58	Insert apostrophe	ʎ	'
59	Insert single quotation marks	ʎ or ʎ ʎ	' '
60	Insert double quotation marks	ʎ or ʎ ʎ	" "
61	Insert ellipsis	ʎ	.../
62	Insert leader	ʎ	...
63	Insert shilling stroke	ʎ	/
64	Refer to appropriate authority anything of doubtful accuracy	Encircle words, etc. affected	?

APPENDIX VI

ABBREVIATIONS OF JOURNALS FROM WORLD LIST OF PERIODICALS

Advanc.Sci.,Lond.
Agric.Met.
Agric.Met.,Amst.
Amazonia
Ann.Sci.
Aust.J.exp.Agric.Anim.Husb.

Bot.Zh.SSSR
Brit.Assoc.
Brit.Geomorphol.Res.Grp tech.Bull.
Brit.J.appl.Phys.
Brit.Rainf.
Building Research Station,
Current Papers, Res.Series
Bull.Amer.met.Soc.
Bull.geol.Surv.G.B.
Bull.Inst.Phys.,Lond.
Bull.int.Ass.scient.Hydrol.
Bull.R.I.L.E.M.

Civ.Engr
Civ.Engng,Lond.
Civ.Engng publ.Wks Rev.
Consult.Engr

Desalination
Discovery

Effl. & Wat.Treat.J.
Endeavour
Expl Agric.
Expl Hort.

Forestry

Geographica
Geogr.Abstr.
Geogr.J.
Geol.Rdsch.
Gewass.Abwass.

Int.J.Air Wat.Pollut.

J.agric.Engng Res.
J.agric.Sci.
J.Amer.met.Soc.
J.anim.Ecol.
J.appl.Ecol.
J.Brit.spel.Ass.
J.exp.Bot.
J.Fish.Res.Bd Can.
J.For.
J.Geol.
J.Glaciol.
J.hort.Sci.
J.Hydraul.Div.Am.Soc.civ.Engrs
J.hydraul.Res.
J.Hydrol.
J.Instn civ.Engrs
J.Instn munic.Engrs
J.Instn Wat.Engrs
J.Proc.Instn agric.Engrs
J.R.agric.Soc.
J.sci.Instrum.
J.Soc.chem.Ind.,Lond.
J.Soil Sci.

Malay Nat.J.
Man.Brit.Wat.Engng Pract.
Mediterranee

ABBREVIATIONS OF JOURNALS FROM WORLD LIST OF PERIODICALS

Mem.geol.Surv.U.K.
Met.Mag.,Lond.
Min.Proc.Instn Civ.Engrs
Mon.Weath.Rev.
Munic.Engng,Lond.
Munic.J.,Lond.

Naturalist,Hull
Nature,Lond.
New Scient.
Norsk ent.Tidsskr.
Notes Rec.R.Soc.Lond.
Nucl.Instrum.Meth.

Phil.Mag.
Phil.Trans.
Phys.Lett.
Pl.Soil
Proc.Amer.Soc.hort.Sci.
Proc.Brit.spel.Ass.
Proc.geol.Soc.
Proc.Instn civ.Engrs
Proc.roy.Soc.
Proc.Soc.Wat.Treat.Exam.

Quart.J.R.met.Soc.

Rep.For.Res.,Lond.
Rep.Trans.Devon Ass.Advmt Sci.

Sci.Progr.
Scient.Hort.
S.E.B.Symp.
Soil Sci.
Soviet Soil Sci.
Symp.Soc.expl Biol.

Tech.Notes Wld met.Org.
Timb.Trades J.
Tn Ctry Plann.
Trans.Amer.Geophys.Union
Trans.Am.Soc.agric.Engrs
Trans.bot.Soc.Edinb.
Trans.Cave Res.Grp Gt.Brit.
Trans.Inst.Brit.Geogr.

Univ.Hull occl.Paps.

Verh.int.Ver.Limnol.

Wat. & Wat.Engng
Wat. & Sewage Wks
Wat.Pollut.Res.
Wat.Resour.Res.
Wat.Waste Treat.J.
Weather
Wld Met.Orgn Bull.
Wessex Cave Club occl.Publs.Series