

Proposals on New Format of Table 7
of Bulletin Statistique

by

V.M. Nikolaev
ICES Statistician



At the 64th Statutory Meeting the Council resolved (C.Res.1976/1:20), that:

"both Tables 7 and 10 of the Bulletin Statistique should be produced as soon as possible from computer print-outs using part of the ICES FISHDAT System; the highest priority should be given to the computerized production of Table 7."

Three draft formats of Table 7 were considered by the Working Group on the Eventual Establishment of an ICES ADP System for Fishery Statistics at its meeting in February 1977 (Section 3.3.2 of the Working Group Report, C.M.1977/D:4). The Group, when discussing the different formats, took into consideration the practical and editorial aspects concerning the printing of it in an "Advance Release", should that be requested in the future. These considerations are also relevant to the possible future publication of the Table in the Bulletin Statistique by direct offset from computer offprints. One was aware, however, that it may also in the future be possible and perhaps desirable to print the Table in a similar form as the present computer-set Table 5. Financial aspects will here be important, but the Group did not discuss these.

The Group noted that it would be necessary, at least in Volume 60 of Bulletin Statistique (for 1975), to use the present categories of fishing effort measurements, but recommended that this matter be discussed at the next Council Meeting when the Statistician will present the different possible formats in a separate document. A sample page of Table 7 in its present form (Volume 59 for 1974) is given in Annex I.

It was also recommended that at that meeting the Statistician should seek the approval of a three-letter species code for use, if necessary, in table headings.

The Group further recommended, that all data from both 27A and 27B STATLANT forms should be amalgamated in the ICES data bank and that the future computer program for Table 7 should be a flexible one allowing for extraction and/or grouping of any or all of the species data stored in the file.

The present paper contains suggestions on two alternative basic formats of Table 7 in future issues of Bulletin Statistique.

*) ICES Statistician
ICES
Charlottenlund Slot
DK-2920 Charlottenlund
Denmark

Format I

Recognizing that most member countries of ICES were conducting fishing operations on both sides of the Atlantic, and that it was desirable to lessen the burden on national reporting offices by making requirements as uniform as possible, the Council at the 60th Statutory Meeting resolved (C.Res.1972/1:10), that:

"the Statistician should cooperate with the Assistant Executive Secretary of ICNAF in order to attempt to make the statistical bulletins of the two organisations as comparable as possible,"

and that this should also be discussed with the Secretary of CWP.

The Council further resolved (C.Res.1972/2:12), that the ADP Working Group, at its meeting in June 1973, should prepare a complete lay-out copy of Bulletin Statistique as it would appear after the introduction of the ICES FISHDAT System.

On the basis of the above resolutions the Statistics Committee, at the 61st Statutory Meeting, having considered the ADP Working Group proposals on new formats of the tables in Bulletin Statistique, agreed that Table 6 (now defunct) should be removed from the Bulletin and the presentation of catch/effort data in the Statistical News Letters (now Table 7 of Bulletin Statistique) should be re-designed in a format similar to the proposed revision of Table 4 (now Table 5) of the ICNAF Statistical Bulletin.

At the same Statutory Meeting the Council further resolved (C.Res.1973/3:8), that:

"... d) CWP be asked to consider at its 8th Session specifically the statistical publications of both ICES and ICNAF with a view to harmonizing these publications so as to permit easy compilation of statistics for the North Atlantic as a whole."

Accordingly, the CWP reviewed forms used by Atlantic fishery regional agencies and FAO under the STATLANT program and recommended that the existing STATLANT FORM B be modified as presented in Annex II, particularly with a view to having a form which would be used for direct punching, i.e., without the reported statistics first having to be transferred to a separate punching document.

The recommendation was accepted by ICNAF and this ultimately resulted in the present form of the above-mentioned Table 5 of the ICNAF Statistical Bulletin, a sample page of which (from Volume 24 for 1974) is given in Annex III.

The proposed Format I of Table 7 of Bulletin Statistique (Annex IV) is basically the same as that of ICNAF Table 5. The only differences are:

- in species items (there are 12 columns for the species originally asterisked on the STATLANT 27B form and a column for other species termed "NEI" - not elsewhere identified),
- in the introduction of an additional column "Vessel HP" to have an indication of the HP category of the vessels involved, as in the present Table 7, and
- in deletion of the fishing effort level (B) - number of days fished.

The reason for the latter is that following the Council resolution (C.Res.1975/5:3) the Gear and Behaviour Committee considered critically the proposals for fishing effort measures by gear category listed in Appendix 7 to the Report of the 8th Session of the CWP, and came to the findings incorporated in Annex V (which are submitted to the 9th Session of the CWP as Doc. CWP-9/6G). The reference documents are given in the Following Annexes:

Paragraph (1)

the gear categories recommended for use - Annex VI;

Paragraphs (4) and (5)

the fishing effort measures - Annex VII.

Only effort level (A) was given credit, but it seems that retention of level (C) "days on ground" might make reporting easier for small-scale fishermen and might be useful for fishery economists as well as for regulatory bodies to which ICES provides advice.

Adoption of abbreviations of fishing gear, as given in Annex VI, was agreed upon by the Council at the 62nd Statutory Meeting (C.Res.1974/1:5).

Usage of abbreviations of the names of the months rather than roman numerals was agreed upon by the Statistics Committee at the 61st Statutory Meeting on the basis of advice from the June 1973 meeting of the ADP Working Group.

GRT categories used in column 3 were approved by the Council at the 63rd Statutory Meeting (C.Res.1975/1:15):

- "(i) member countries should use the International Standard Statistical Classification of Fishing Vessels (ISSCFV) when reporting fleet and effort data by tonnage categories, and that these tonnage categories should be incorporated in Tables 7 and 9 of Bulletin Statistique;
- (ii) the ISSCFV should be used for fleet and effort statistics for 1975 data onwards."

A revised version of ISSCFV, since then, is given in Annex VIII.

HP categories of fishing vessels, as used by ICES before, can be found in Table 9 of Bulletin Statistique. New extended GRT and HP categories were attached in a draft form to the ICES circular letter to members of the Statistics Committee and national statistical reporting offices on 22 February 1977. They, together with the Notes for the Completion of ICES Data Form 6 "Fishing Craft and Fishermen", will be considered by the 9th Session of the CWP (Doc. CWP-9/6C), and the conclusions will be described in the "Progress Report".

The CWP will also consider the 3-letter species code, as recommended by the Statistics Committee at the 64th Statutory Meeting, which was submitted as Doc. CWP-9/4E - "ICES Notes on a Three Alpha Code for Species Items". Since the 9th Session of the CWP is scheduled for 17 to 25 August 1977, the Statistician, rather than distribute the same document to the 65th Statutory Meeting, will submit the revised version after the CWP session, having taken into account comments by other CWP members.

The 3-letter country codes were, inter alia, approved by the Council at the 64th Statutory Meeting, when it was resolved (C.Res.1976/4:11), that:

"ICES adopt the same area, country, species and gear codes as currently used for the Council's statistics - except for the hydrographical data - in accordance with the agreement reached under C.Res.1975/4:19."

(which requested that the Chairman of the Working Group on Data Collection and Processing in Fish Capture Research, the Chairman of the ADP Working Group, and the ICES Statistician should agree on the uniform use and development of the above-mentioned coding systems).

The 3-letter country codes in question can be seen on Page 86 of the "Procès-Verbal de la Réunion 1975" and in the right-hand column of the attached Tables 3 and 4 of Volume 59 of Bulletin Statistique (for 1974), (Annexes IX and X). They were also presented to the 9th Session of the CWP as Annexes XIV and XV of Doc. CWP-9/2C - "Report on ICES Fishery Statistical Programme, Publications and ADP Processing".

Fishing effort measures in question are described in Annex VII.

The advantage of Format I is, besides becoming quite similar to the ICNAF Table 5, it still contains HP categories of vessels, and also incorporates the "main species sought" entry, the Table would fit within 132 digits. The amount of 132 digits constitute the upper limit for obtaining direct computer print-outs from the line-printer available at the ICES Secretariat, which may be used by the ICES Assessment Working Groups and, having been reduced, may be printed by means of a "simplified" offset method in Bulletin Statistique sideways, as the present Table 7 but with a larger print.

If accepted, this could eventually lead to the adoption by ICES of a standard STATLANT B form recommended by the CWP (see Annex II) with a possible substitution of "vessel type" entry or "days fished" entry for "vessel HP" in the first case, and "average HP" in the second case, if the latter is preferable. In either case the process of reporting would be simplified for national offices by use of a 2-digit code for HP categories.

Assuming that for no species a single entry or rather a total entry for a month, for a fishing area were ever to exceed a 5-digit figure, then it would be possible to add one or two additional columns to the proposed format. However, with improved stocks and/or high seasonal concentrations of fishing effort on a particular species in a limited number of fishing areas this might not be the case. Thus, in order to avoid the computer program for Table 7 becoming inoperative under such circumstances, any extension of entries in Format I, beyond the suggested number, appears undesirable.

Format II

If, on the other hand, retention of all "fishing effort measures" as they appear in the present Table 7 (see Annex I) together with separate entries for each of the 16 species now asterisked on the STATLANT 27B form seemed to be warranted, Table 7 would have to be printed horizontally on both sides of Bulletin Statistique, the same way as Table 5 is being printed now. This would lead to an increase in volume of Bulletin Statistique with certain financial implications, but these are not discussed here.

Format II (see Annex XI) then, is based both on the existing entries in Table 7 and the current STATLANT 27B form (Annex XII), but the first generalized grouping being done by fishing areas instead of fishing gear and the second by months, which is believed to be more practicable for the ICES Assessment Working Groups and brings the format closer to that of the ICNAF Table 5. The same codes are used as explained above.

As in Format I, GRT and HP categories are used instead of weighted average actual figures, which under the proposed finer breakdown of those categories gives an accurate enough indication of fishing power involved, simultaneously making the task of national reporting offices much easier. "Main species sought" and "Number of days on ground" categories are also added.

It is suggested to include into the third but last column on the right-hand side "Pandalid shrimp" and "Norway lobster", both being the only crustaceans on the STATLANT 27B form. This would provide (for shrimp and Nephrops trawls and dredges) not only catch/effort data, but also data on the by-catches of other species.

- x - x -

If neither of the two formats are accepted, it is hoped that they, nevertheless, provide a range to chose an alternative. It should be noted, however, that if reasons of uniformity and economy prevail in the considerations, the actual size of Format I should not, as far as possible, be extended. If on the other hand, it is considered necessary to give the fullest possible coverage of available catch and effort data in Table 7, Format II provides ground for extention, if required.

(continued) Table 7. Nominal Catch and Fishing Effort in 1974 by Gear, Fishing Areas, Countries and Vessel Categories, given by Year or Months

7.2		Midwater Trawls					7.2.1 (cont'd)					Otter Trawls					Side Trawlers						
Fishing areas countries vessel categories year or months	Fishing effort						Nominal catch (metric tons)																
	Hours fishing	Days fishing	Days at sea	Av. gross tonnage	Av. H.P.	Fishing units operat.	Total	Capelin	Plaice	Common sole	Cod	Haddock	Hake	Norway pout	Saithe	Whiting	Red- fishes	Herring	Sprat	Mack- errel	Picked dogfish	Various	
Barents Sea (I)																							
U.S.S.R.																							
50-99.9 tons																							
October	250	36	-	-	-	-	1 000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 000
November	361	37	-	-	-	-	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	750
Total	611	73	-	-	-	-	1 750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 750^{a)}
Baltic (IIId)																							
German Dem. Rep.																							
51-150 tons																							
January	-	716	-	-	-	-	2 427	-	-	-	16	-	-	-	-	-	-	2 212	144	-	-	-	55
February	-	729	-	-	-	-	3 325	-	-	-	6	-	-	-	-	-	-	1 637	1 678	-	-	-	4
March	-	669	-	-	-	-	4 018	-	-	-	10	-	-	-	-	-	-	2 410	1 587	-	-	-	11
April	-	641	-	-	-	-	2 847	-	-	-	65	-	-	-	-	-	-	2 729	35	-	-	-	18
May	-	282	-	-	-	-	2 315	-	-	-	2	-	-	-	-	-	-	2 279	-	-	-	-	34
June	-	611	-	-	-	-	1 950	-	-	-	119	-	-	-	-	-	-	1 802	-	-	-	-	29
July	-	602	-	-	-	-	2 577	-	-	-	30	-	-	-	-	-	-	2 530	-	-	-	-	17
August	-	659	-	-	-	-	3 854	-	-	-	13	-	-	-	-	-	-	3 626	-	-	-	-	215
September	-	698	-	-	-	-	3 254	-	-	-	22	-	-	-	-	-	-	3 207	-	-	-	-	25
October	-	712	-	-	-	-	3 703	-	-	-	31	-	-	-	-	-	-	3 672	-	-	-	-	-
November	-	675	-	-	-	-	2 579	-	-	-	38	-	-	-	-	-	-	2 480	-	-	-	-	61
December	-	473	-	-	-	-	2 303	-	-	-	12	-	-	-	-	-	-	2 291	-	-	-	-	-
Total	-	7 467	-	-	-	-	35 152	-	-	-	364	-	-	-	-	-	-	30 875	3 444	-	-	-	469
N. North Sea (IVa)																							
Germany, Fed. Rep.																							
901-1800 tons (L.M.)																							
March	106	7	10	976	2 100	-	180	-	-	-	-	2	2	-	174	-	-	-	-	-	-	-	2
Iceland Grounds (Va)																							
Germany, Fed. Rep.																							
901-1800 tons (L.M.)																							
March	82	5	8	976	2 100	-	48	-	-	-	2	-	-	-	-	-	44	-	-	-	-	-	2
Irish Sea (VIIa)																							
U.K. (N. Ireland)																							
25-100 tons																							
Total	10 620	885	885	63	302	34	5 793	-	-	-	-	-	-	-	-	-	-	5 793	-	-	-	-	-
English Channel																							
E. and W. (VIIId,e)																							
German Dem. Rep.																							
51-150 tons																							
May	-	102	-	-	-	-	521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	521

L.M. - Large Mesh

a) Polar cod

TABLE 5. (CONTINUED)

METRIC TONS ROUND FRESH

MON	GEAR	SPEC	TON	COUNTRY	FISHING EFFORTS			COD	HAD	RED	S H	R H	POL	A P	WIT	YEL	OFL	O G	MER	MAC	O P	O F	INV	TOTAL
					(C)	(B)	(A)																	
DIVISION 4VS (CONTINUED)																								
	OTB2	RED	5	CAN-MQ	-	4	52	1	-	46	-	-	-	5	-	2	-	1	-	-	-	-	-	55
	OTB2	A P	5	CAN-MQ	-	7	85	9	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	54
	OTB2	HER	6	FRG-M	-	2	-	-	-	-	-	-	34	-	2	-	-	-	-	-	-	-	-	178
	OTB2	MIX	7	USSR	122	94	671	-	-	88	138	16	-	1254	14	2	82	-	178	2	-	110	63	1769
	PTB	COD	5	SPA	2	1	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	PTB	COD	4	SPA	11	8	121	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
	SDN	A P	3	CAN-MQ	-	2	9	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	9
	SSC	A P	3	CAN-MQ	-	3	30	-	-	-	-	-	-	8	3	1	-	-	-	-	-	-	-	12
	LLS	COD	4	NOR	-	13	204	77	-	-	-	-	-	-	-	-	1	-	-	-	-	5	-	83
	LLS	HAL	4	CAN-MQ	-	12	83	-	-	-	-	-	-	-	-	-	5	1	-	-	-	-	-	6
	LLS	HAL	3	CAN-MQ	-	37	228	4	-	-	-	-	-	-	-	15	4	-	-	-	-	-	-	23
	TOTAL							174	66	568	138	16	32	1313	18	8	103	36	178	2	-	115	63	2830
SEP																								
	OTB1	RED	4	CAN-MQ	-	19	211	26	8	122	-	-	-	-	-	1	8	-	-	-	-	-	-	165
	OTB1	RED	4	USA	-	1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4
	OTB2	HAD	6	UK	-	21	140	15	137	1	-	-	-	-	-	4	3	-	-	-	-	3	-	163
	OTB2	RED	4	USA	-	3	-	-	-	126	-	-	1	-	-	-	-	-	-	-	-	-	-	127
	OTB2	MIX	7	USSR	60	47	291	-	-	30	118	31	-	920	-	-	24	-	-	6	-	74	26	1229
	OTM2	HER	7	FRG	-	10	92	-	-	-	-	-	-	-	-	-	-	-	352	-	20	-	-	372
	OTM2	HER	6	FRG	-	2	31	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	-	60
	PTB	COD	5	SPA	13	8	139	154	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175
	PTB	COD	4	SPA	56	45	542	517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517
	LLS	COD	4	NOR	-	21	352	102	-	-	-	-	-	-	-	-	1	-	-	-	-	8	-	111
	LLS	HAL	4	CAN-MQ	-	8	63	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	5
	LLS	HAL	3	CAN-MQ	-	2	16	2	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	4
	TOTAL							816	166	283	118	31	1	920	-	33	15	412	6	20	85	26	2932	
OCT																								
	OTB1	COD	4	CAN-MQ	-	5	54	25	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	39
	OTB1	RED	4	CAN-MQ	-	42	461	15	3	416	-	-	-	-	-	-	3	-	-	-	-	-	-	438
	OTB1	RED	4	CAN-N	4	4	45	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	12
	OTB2	COD	5	CAN-MQ	-	3	29	18	-	1	-	-	1	3	1	-	1	1	-	-	-	-	-	26
	OTB2	RED	5	CAN-MQ	-	7	98	11	6	37	-	-	-	-	1	-	1	-	-	-	-	-	-	56
	OTB2	RED	5	CAN-N	7	7	83	-	-	31	-	-	-	-	1	-	1	-	-	-	-	-	-	33
	OTB2	RED	4	CAN-MQ	-	25	272	13	7	126	-	-	-	4	-	1	4	-	-	-	-	-	-	155
	OTB2	MIX	7	USSR	79	45	542	12	-	53	90	23	-	780	4	3	42	-	-	-	-	32	-	1039
	OTM2	HER	7	FRG	-	3	29	5	-	-	53	-	-	-	-	-	-	-	38	-	-	-	-	96
	OTM2	HER	6	FRG	-	2	27	-	-	-	-	-	-	-	-	-	-	-	109	-	-	-	-	109
	PTB	COD	5	SPA	31	21	284	167	2	-	-	-	30	-	-	-	-	-	-	-	-	-	-	199
	PTB	COD	4	SPA	139	106	1367	978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	978
	LLS	COD	4	NOR	-	22	433	73	-	-	-	-	-	-	-	-	4	69	-	-	-	9	-	155
	LLS	HAL	4	CAN-MQ	-	4	27	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	3
	TOTAL							1317	22	683	143	23	31	787	8	3	50	80	147	-	-	41	-	3335
NOV																								
	OTB1	RED	4	CAN-MQ	-	33	471	33	8	215	-	-	15	1	2	2	-	6	-	-	-	-	-	282
	OTB1	RED	4	USA	-	1	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7
	OTB1	A P	4	CAN-MQ	-	11	129	7	-	5	-	-	-	25	9	-	-	-	-	-	-	-	-	46
	OTB2	COD	3	CAN-MQ	-	3	30	3	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-	6
	OTB2	RED	4	CAN-MQ	-	6	83	7	2	15	-	-	-	-	1	-	1	-	-	-	-	-	-	27
	OTM	RED	5	CAN-MQ	-	10	120	2	-	37	-	-	-	12	-	-	-	-	-	-	-	-	-	51
	OTM2	HER	7	FRG	-	3	35	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	56
	PTB	COD	5	SPA	47	39	548	648	2	-	-	-	6	-	-	-	-	-	-	-	-	-	-	656
	PTB	COD	4	SPA	81	63	884	553	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	561
	LLS	COD	4	NOR	-	6	105	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
	LLS	HAL	4	CAN-MQ	-	3	21	-	-	-	-	-	-	-	-	1	4	-	-	-	-	3	-	5
	TOTAL							1281	20	279	-	-	21	40	12	2	2	12	56	-	-	3	-	1728
DEC																								
	OTB1	COD	4	CAN-MQ	-	13	171	50	3	13	-	-	1	11	5	-	2	-	-	-	-	-	-	85
	OTB1	RED	4	CAN-MQ	-	5	77	12	-	19	-	-	-	7	2	-	-	-	-	-	-	-	-	40
	OTB1	A P	4	CAN-MQ	-	38	520	7	-	33	-	-	-	196	42	-	1	-	-	-	-	-	-	279
	OTB2	COD	5	CAN-MQ	-	6	65	35	-	1	-	-	-	9	1	-	4	-	-	-	-	-	-	50
	OTB2	COD	5	CAN-N	3	3	34	30	-	1	-	-	-	4	5	-	-	-	-	-	-	-	-	40
	OTB2	A P	5	CAN-N	10	10	137	-	-	1	-	-	-	87	26	-	-	17	-	-	-	-	-	131
	PTB	COD	5	SPA	37	36	543	505	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	536
	PTB	COD	4	SPA	24	17	224	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127
	TOTAL							766	3	68	-	-	32	314	81	-	-	24	-	-	-	-	-	1288

Format I of ICES Table 7

Fishing Area																					
Month	Fishing Gear	Vessel GRT	Vessel HP	Main Species Sought	Country	Fishing effort		Nominal catch (metric tons)													
						(A)	(C) days on ground	PLA	SOL	COD	HAD	STH	NOP	WHG	SAN	HER	SPR	MAC	DGS	NEI	TOTAL

EXAMPLE

Division IVa																					
JUL	OTB	05	-	MIX	BEL	303	25	-	-	6	4	13	-	4	-	-	-	-	-	18	45
	OTB	01	03	NOP	NOR	-	33	-	-	-	-	-	72	-	-	-	-	-	-	-	72
	OTB	06	-	PLA	ENG	9382	701	551	-	569	233	245	-	15	-	-	-	+	-	206	1819
	OTM	08	07	HER	GFR	253	22	-	-	-	-	-	-	-	-	966	-	1	-	-	967
	PSI	07	06	MAC	NOR	-	534	-	-	-	-	-	-	-	-	131	-	13202	-	256	13589
	TOTAL							551	-	575	237	258	72	19	-	1097	-	13203	-	480	16492

ICES, PROCÈS-VERBAL DE LA RÉUNION 1976

Report: Gear and Behaviour Committee

Extract of Paragraph 8 of Report

8. The request in C.Res.1975/5:3 from the Statistics Committee for advice on fishing effort measures by gear category was discussed at some length. The following comments were approved by the Gear and Behaviour Committee:

- " (1) the gear categories used should be as listed in Appendix 5, rather than as in Appendix 7, of Doc. C.M.1975/D:6 (FAO Fisheries Report, No. 156). The former is the international standard statistical classification with standard abbreviations and codes. In particular, it distinguishes between bottom and midwater trawls, and it includes harvesting machines such as pumps. This preferred listing also appears in Section 3.2 of FAO Fisheries Circular, No. 443 (Rev.1) and in Part B of FAO Fisheries Circular No. 429 (Rev.1);
- (2) a single preferred fishing effort measure should be selected for each gear type with alternatives available only for isolated instances when the preferred measure cannot be used. The listing of alternatives in order of preference as in Doc. C.M.1975/D:6 will cause increased use of alternatives and increased difficulty in analysing fishing effort;
- (3) the relations between fishing effort and the stress on the fishery resource is not a constant. Instead it is a variable which can be used to study such matters as changes in fish stocks and developments in fishing technology. Thus the selection of fishing effort measures should be based on the capture process rather than on catch experience;
- (4) Section 5.3 of FAO Fisheries Circular No. 443 (Rev.1) and Section, Part D of FAO Fisheries Circular No. 429 (Rev.1) list a single, preferred fishing effort measure for each of several types of gear. However, it was noted that for seines, trawls and dredges the number of sets or number of hours fished must be interpreted in terms of the size of the fishing unit in any attempt to relate effort to stress on the fishery resource. The size of the fishing unit is an integral part of fishing effort;
- (5) in the fishing effort measure listings identified in Section 4 above, the column headed "Effort level" would be more appropriately called "Level of precision" of the alternative measures. The measures listed under Levels B-E are much less precise than those in Level A and can be expected to contain less information, whether the level of effort is greater or smaller;
- (6) the processing of fishing effort data would be simplified if a single measure were found which could be applied to all gears. Interpretation of catch per effort data would be easier and mixed gear fisheries could be analysed".

Extract from FIPS/C443 (Rev.1):

" NOTES FOR THE COMPLETION OF FORM STATLANT 27B "

GEAR CATEGORIES	Standard abbreviations	FAO Code
<u>SURROUNDING NETS</u>	-	01.0.0
With purse lines	PS	01.1.0
- one boat	PS1	01.1.1
- two boats	PS2	01.1.2
Without purse lines (lampara)	LA	01.2.0
<u>SEINE NETS</u>	-	02.0.0
Beach seines	SB	02.1.0
Boat or vessel seines	SV	02.2.0
- Danish seines	SDN	02.2.1
- Scottish seines	SSC	02.2.2
- Pair seines	SPR	02.2.3
<u>TRAWLS</u>	-	03.0.0
Bottom trawls (general)	TB	03.1.0
- beam trawls	TBB	03.1.1
- otter trawls (side or stern not specified)	OTB	03.1.2
- pair trawls	PTB	03.1.3
Midwater trawls (general)	TM	03.2.0
- otter trawls (side or stern not specified)	OTM	03.2.1
- pair trawls	PTM	03.2.2
Otter trawls (not specified)	OT	-
Pair trawls (not specified)	PT	-
Other trawls	TX	03.3.0
- shrimp trawls		
<u>DREDGES</u>	-	04.0.0
Boat dredges	DRB	04.1.0
Hand dredges	DRH	04.2.0
<u>LIFT NETS</u>	LN	05.0.0
<u>FALLING GEAR</u>	FG	06.0.0

continued

Notes for Completion of STATLANT 27 B (ctd)

GEAR CATEGORIES	Standard abbreviations	FAO Code
<u>GILL NETS AND ENTANGLING NETS</u>	-	07.0.0
Set gill nets	GNS	07.1.0
Drift gill nets	GND	07.2.0
Encircling drive-in nets	GNC	07.3.0
Gill nets (not specified)	GN	07.9.0
<u>TRAPS</u>	-	08.0.0
Stationary uncovered pound-nets	FPN	08.1.0
Covered pots and fyke nets	FPF	08.2.0
- covered pots	FPO	08.2.1
- fyke nets	FYK	08.2.2
Stow-nets	FSN	08.3.0
Barriers, fences, weirs, etc.	FWR	08.4.0
Aerial traps	FAR	08.5.0
Traps (not specified)	FIX	08.9.0
<u>HOOKS AND LINES</u>	-	09.0.0
Hand-lines and pole-lines	LHP	09.1.0
Hand-lines and pole-lines(mechanized)	LHM	-
Set lines (longlines set)	LLS	09.2.0
Drift lines (longlines drift)	LLD	09.3.0
Longlines (not specified)	LL	-
Troll lines	LTL	09.4.0
Dory vessel line gears	LDV	09.8.0
<u>GRAPPING AND WOUNDING</u>	-	10.0.0
Harpoons	HAR	10.1.0
<u>HARVESTING MACHINES</u>	-	11.0.0
Pumps	HMP	11.1.0
Mechanized dredges	HMD	11.2.0
Other appliances	HMX	11.3.0
<u>MISCELLANEOUS GEARS</u>	MIS	20.0.0
<u>GEAR NOT KNOWN OR NOT SPECIFIED</u>	NK	30.0.0

Measures of fishing effort3. FISHING TIME

Effort Level	Fishing gears	Effort measure descriptors	Definitions
<u>A. FIRST</u>	Surrounding nets (Purse seines)	<i>No. of sets</i>	Number of times the gear has been set or shot, whether or not a catch was made.
	Beach seines	<i>No. of sets</i>	Number of times the gear has been set or shot, whether or not a catch was made.
	Boat seines (Danish seine, etc.)	<i>No. of hours fished</i>	Number of hours during which the seine was on the bottom and fishing.
	Trawls	<i>No. of hours fished</i>	Number of hours during which the trawl was in the water (midwater trawl), or on the bottom (bottom trawl), and fishing.
	Boat dredges	<i>No. of hours fished</i>	Number of hours during which the dredge was on the bottom and fishing.
	Gillnets (set or drift)	<i>No. of effort units</i>	Length of nets expressed in 100-metre units multiplied by the number of sets made (=accumulated total length in metres of nets used in a given time period divided by 100).
	Gillnets (fixed)	<i>No. of effort units</i>	Length of net expressed in 100-metre units multiplied by the number of times the net was cleared.
	Traps (uncovered pound nets)	<i>No. of effort units</i>	Number of days fished times the number of units hauled.

Effort level	Fishing gears	Effort measure descriptors	Definitions
<u>A. FIRST</u> continued	Covered pots and fyke nets	No. of effort units	Number of lifts times the number of units (=total number of units fished in a given time period).
	Longlines (set or drift)	Thousands of hooks	Number of hooks fished in a given time period divided by 1000.
	Handlines (pole, troll, jig, etc.)	No. of line-days	Total number of lines used in the given time period.
	Harpoons	-	(Report effort levels B and C only).
<u>B. SECOND</u>	All gears	No. of days fished	The number of days (24-hour periods, reckoned from midnight to midnight) on which any fishing took place. For those fisheries in which searching is a substantial part of the fishing operation, days in which searching but no fishing took place should be included in "days fished" data.
<u>C. THIRD</u>	All gears	No. of days on grounds	The number of days (24-hour periods, reckoned from midnight to midnight, in which the vessel was on the fishing ground, and includes in addition to the days fishing and searching also all the other days while the vessel was on the ground.
<u>D. FOURTH</u>	All gears	No. of days absent from port	The number of days absent from port on any one trip should include the day the fishing craft sailed but <u>not the day of landing</u> . Where it is known that fishing took place on each day of the trip the number of "days absent from port" should include not only the day of departure but also the day of arrival back in port. Where on any trip a fishing craft visits more than one "fishing area" (as defined for statistical purposes) an appropriate fraction of the total number of days absent from port should be allocated to each "fishing area" in proportion to the number of days spent in each, so that the total number of days absent on the trip will be the sum of the number of days allocated to all of the different "fishing areas" visited.
<u>E. FIFTH</u>	All Gears	No. of trips made	Any voyage during which fishing took place in only one "fishing area" is to be counted as one trip. When in a single trip a craft visits more than one "fishing area" an appropriate fraction of the trip should be apportioned to each "fishing area" in proportion to the number of days spent fishing in each, so that the total number of trips for the Statistical Area as a whole will be the same as the sum of trips to each "fishing area".

INTERNATIONAL STANDARD STATISTICAL CLASSIFICATION OF FISHING VESSELS
(ISSCFV) (Revised version)

"DIVISION"				"GROUPS"		
Division Code	Lower Limit GRT	Upper Limit 1/ GRT		Group Code	Lower Limit GRT	Upper Limit 1/ GRT
00	0	0.9	=	001	0	0.9
01	1	24.9	}	011	1	4.9
				012	5	9.9
				013	10	14.9
				014	15	19.9
				015	20	24.9
02	25	49.9	=	021	25	49.9
03	50	99.9	=	031	50	99.9
04	100	149.9	=	041	100	149.9
05	150	249.9	{	051	150	199.9
				052	200	249.9
06	250	499.9	}	061	250	299.9
				062	300	349.9
				063	350	399.9
				064	400	449.9
				065	450	499.9
07	500	999.9	}	071	500	599.9
				072	600	699.9
				073	700	799.9
				074	800	899.9
				075	900	999.9
08	1 000	1 999.9	=	081	1 000	1 999.9
09	2 000	9 999.9	}	091	2 000	2 999.9
				092	3 000	3 999.9
				093	4 000	4 999.9
				094	5 000	5 999.9
				095	6 000	6 999.9
				096	7 000	7 999.9
				097	8 000	8 999.9
				098	9 000	9 999.9
10	10 000	99 999.9	}	101	10 000	19 999.9
				102	20 000	29 999.9
				103	30 000	39 999.9
				104	40 000	49 999.9
				105	50 000	99 999.9

1/ ".9" is understood to be recurring

Table 3. Quantity (Nominal Catch) of Fish landed

Country	Total Catch metric tons	Breakdown by											
		Barents Sea	Norwegian Sea	Spitzbergen Bear Island	Kattegat and Skagerak	The Sound and Belt Sea	Baltic	North	Central	South	Iceland grounds	Faroe Plateau	Faroe Bank
		I	IIa	IIb	IIIa	IIIb, c	IIIc	IVa	IVb	IVc	Va	Vb ₁	Vb ₂
Belgium	43975	237	—	—	—	—	—	343	14092	12701	7912	—	—
Denmark	1786744	—	148	—	269495	44497	62769	798437	582436	28962	—	—	—
Faroe Islands	226728	4260	1724	713	7134	—	—	128264	18126	—	19534	24909	1593
Finland	87702	—	—	—	—	—	86928	—	774	—	—	—	—
France	468288	11985	15221	30686	—	—	—	41136	23574	23595	248)24994)...
German Dem. Rep.	215754	2866	58746	7642	745	11695	89388	5647	4857	—	399)292)...
Germany, Fed. Rep.	375692	60999	48834	44974	200	18584	13274	23078	51945	126	68144	16990	—
Greenland	71	—	—	—	—	—	—	—	—	—	—	—	—
Iceland	933499	—	—	—	1158	—	—	30620	5436	—	876422	—	—
Ireland	79855	—	—	—	—	—	—	—	—	—	—	—	—
Netherlands	214021	—	—	—	—	—	—	20954	101393	55553	—	—	—
Norway	2420164	753201	636938	252436	12970	—	—	631974	45799	—	1599	17018	—
Poland	298752	6921	3930	12210	—	—	181736	47885	3305	—	513	3221	—
Portugal	229484	26272	—	—	—	—	—	—	—	—	—	—	—
Spain	446480	20929	2740	994	—	—	—	1223	620	—	—	750	750
Sweden	199982	—	29	—	b)...	c)...	c)89840	b)109374	—	—	—	—	—
U.K. (Eng. & Wales)	475000	96313	29107	11231	82	—	—	21065	103939	8021	138266	7978	2320
U.K. (Isle of Man)	11023	—	—	—	—	—	—	—	—	—	—	—	—
U.K. (N. Ireland)	14431	—	—	—	—	—	—	—	—	—	—	—	—
U.K. (Scotland)	490822	—	973	3135	4	—	—	224920	51046	1	3768	23781	2112
U.S.S.R.	1994812	831862	10713	230275	—	—	347989	107500	103296	8147	12574	—	—
Total	11013279	1815845	809103	594296	291788	74776	871924	2192420	1110638	137106	1129379	119933	6775

a) Vb(1) includes Vb(2). b) IVa includes IIIa. c) IIIc includes IIIb, c. d) VIa includes Vb.

ANNEX X

Table 4. Quantity (Nominal Catch) of Invertebrates

Country	Total Catch metric tons	Breakdown by											
		Barents Sea	Norwegian Sea	Spitzbergen Bear Island	Kattegat and Skagerak	The Sound and Belt Sea	Baltic	North	Central	South	Iceland grounds	Faroe Plateau	Faroe Bank
		I	IIa	IIb	IIIa	IIIb, c	IIIc	IVa	IVb	IVc	Va	Vb ₁	Vb ₂
Belgium	2940	—	—	—	—	—	—	+	570	1834	6	—	—
Denmark	34542	—	—	—	2258	5297	3	26807	177	—	—	—	—
Faroe Islands	582	—	—	—	—	—	—	—	—	—	—	582	—
France	195729	—	—	—	—	—	—	400	—	370	—)200)...
Germany, Fed. Rep.	52318	—	—	—	1	87	—	—	52193	37	—	—	—
Iceland	11350	—	—	—	—	—	—	—	—	—	11350	—	—
Ireland	9670	—	—	—	—	—	—	—	—	—	—	—	—
Netherlands	108463	—	—	—	—	—	—	—	1194	107269	—	—	—
Norway	12755	636	6511	2943	1268	—	—	1288	109	—	—	—	—
Portugal	7576	—	—	—	—	—	—	—	—	—	—	—	—
Spain	147822	—	—	—	—	—	—	—	—	—	—	—	—
Sweden	2752	—	—	—	b)...	c)...	c)1	b)2751	—	—	—	—	—
U.K. (Eng. & Wales)	41646	—	—	—	—	—	—	—	2333	25228	+	—	110
U.K. (Isle of Man)	3768	—	—	—	—	—	—	—	—	—	—	—	—
U.K. (N. Ireland)	2847	—	—	—	—	—	—	—	—	—	—	—	—
U.K. (Scotland)	18998	—	—	—	—	—	—	4014	3482	—	+	11	59
U.S.S.R.	1093	d)711	102	179	—	—	—	—	—	—	—	—	—
Total	654851	1347	6613	3122	3527	5384	4	35260	60058	134738	11356	793	169

a) Vb(1) includes Vb(2). b) IVa includes IIIa. c) IIIc includes IIIb, c. d) Includes various algae.

by all Countries from North-East Atlantic 1974

All Species (Invertebrates not included)

Sub-areas and Divisions

NW. coast Scotland N. Ireland	Rockall	Irish Sea	W.coast Ireland Porcupine Bank	English East	Channel West	Bristol Channel	S.coast Ireland	Bay of Biscay	Portuguese waters	Azores grounds	North of Azores	East Greenland	Unknown	
Via	Vib	VIIa	VIIb, c	VII d	VII e	VII f	VII g-k	VII I	IX	X	XII	XIV		
662	—	2427	—	1170	...	2505	1926	—	—	—	—	—	—	BEL
—	—	—	—	—	—	—	—	—	—	—	—	—	—	DEN
17190	2205	—	—	—	—	—	—	—	—	—	—	1076	—	FAR
—	—	—	—	—	—	—	—	—	—	—	—	—	—	FIN
68498	6873	14942	7765	68900	...	12936	55731	57320	488	2250	—	—	1146	FRA
4964	—	—	—	1801	...	—	—	—	—	—	—	—	—	GDR
19831	—	—	+	2231	...	—	1285	—	—	—	—	—	—	GFR
—	—	—	—	—	—	—	—	—	—	—	—	—	—	GRL
6872	—	—	—	—	—	—	—	—	—	—	—	12991	—	ICE
23950	—	32622	7407	—	—	—	15876	—	—	—	—	—	—	IRL
23497	—	2169	80	1176	...	220	8979	—	—	—	—	—	—	NED
64905	193	—	1831	—	—	—	—	—	—	—	—	—	1300	NOR
11995	—	—	53	1279	...	—	24591	—	—	—	—	1113	—	POL
—	—	—	—	—	—	—	—	—	—	—	—	—	—	POR
31750	—	—	8218	—	—	—	80136	236877	191194	12018	—	—	—	SPA
4)739	4)...	—	—	—	—	—	—	—	61493	—	—	—	—	SWE
7550	+	14281	64	29955	...	3992	166	—	—	—	—	670	—	ENG
—	—	11023	—	—	—	—	—	—	—	—	—	—	—	IOM
1002	—	13429	—	—	—	—	—	—	—	—	—	—	—	NI
176630	720	3260	25	—	—	447	—	—	—	—	—	—	—	SCO
9456	50161	55245	6421	57112	...	—	91144	2659	—	62504	5874	1880	—	USS
469491	60152	149398	31864	163624	...	20100	279834	296856	253175	76772	5874	49710	2446	Total

ANNEX X (cont'd)

landed from North-East Atlantic 1974

Sub-areas and Divisions

NW. coast Scotland N. Ireland	Rockall	Irish Sea	W.coast Ireland Porcupine Bank	English East	Channel West	Bristol Channel	S.coast Ireland	Bay of Biscay	Portuguese waters	Azores grounds	North of Azores	East Greenland	Unknown	
Via	Vib	VIIa	VIIb, c	VII d	VII e	VII f	VII g-k	VII I	IX	X	XII	XIV		
2	—	40	—	196	...	152	140	—	—	—	—	—	—	BEL
—	—	—	—	—	—	—	—	—	—	—	—	—	—	DEN
500	600	—	1100	69125	...	350	4349	118735	—	—	—	—	—	FAR
—	—	—	—	—	—	—	—	—	—	—	—	—	—	FRA
—	—	—	—	—	—	—	—	—	—	—	—	—	—	GFR
455	—	3813	1484	—	—	—	3918	—	—	—	—	—	—	ICE
—	—	—	—	—	—	—	—	—	—	—	—	—	—	IRL
—	—	—	—	—	—	—	—	—	—	—	—	—	—	NED
—	—	—	—	—	—	—	—	—	—	—	—	—	—	NOR
298	—	—	482	—	—	—	4703	117461	7418	158	—	—	—	POR
—	—	—	—	—	—	—	—	—	24878	—	—	—	—	SPA
15	—	3483	—	9524	...	873	80	—	—	—	—	—	—	SWE
—	—	3768	—	—	—	—	—	—	—	—	—	—	—	ENG
14	—	2833	—	—	—	—	—	—	—	—	—	—	—	IOM
9129	30	2273	—	—	—	—	—	—	—	—	—	—	—	NI
—	—	—	—	—	—	—	—	—	—	—	—	—	—	SCO
10413	630	16210	3066	78845	...	1375	13190	236196	32296	158	—	101	—	USS
—	—	—	—	—	—	—	—	—	—	—	—	101	—	Total

Nominal catch (metric tons)																			
CPL	PLA	SOL	COD	HAK	HAD	STH	PCD	NOP	WHG	SAN	RED	HER	SPR	MAC	DGS	PAN	NEP	NEI	TOTAL

-	-	-	12	-	8	127	-	-	-	-	-	29	-	-	-	-	-	11	187
-	+	+	13	-	+	-	-	-	+	-	-	21	17	1	+	-	-	+	52
-	6	-	145	+	273	10	-	-	73	-	-	29	-	48	49	-	-	16	649
-	407	35	58	-	2	-	-	-	2	-	-	-	-	-	1	-	-	100	605
-	331	+	631	1	703	+	-	-	127	-	-	-	-	+	-	-	-	444	2237
-	744	35	859	1	986	137	-	-	202	-	-	79	17	49	50	-	-	571	3730

