

International Geophysical Calendar 1963

1. **Purpose**—The International Geophysical Calendar designates selected days and intervals for special attention for geophysical experiments and analysis and is thus a framework for world-wide co-ordination. The Calendar serves mainly the branches of geophysics dealing with the earth's atmosphere in which many phenomena vary significantly during the course of a year. In some experiments, such as the routine recording of variations of the earth's magnetic field, the observing and analysis programs at observatories are normally carried out at a uniform level throughout the year; in these cases the Calendar is not needed. However, in many other experiments (for example, rocket experiments), it is not practical or meaningful to carry out the same program on each and every day. Here the Calendar can provide a useful mechanism for co-ordination; experimenters will know that their colleagues in other countries, in other laboratories, and in other disciplines will tend to also carry out experiments on the days or intervals marked on the Calendar. In this way, results of experiments may later be more easily and usefully compared.

In some scientific fields, international scientific organizations have made specific recommendations for programs to be done on days or intervals marked on the Calendar. In others, the arrangements are informal or self-evident. Some examples are given below.

2. **Regular World Days (RWD)** are intended for observations or analyses or special experiments which as a practical matter can be done for only about 10% of days and should be in groups of three consecutive days and spaced throughout the year. One day of each group of three is designated as the "RWD" with highest priority and may be used for similar work which can be undertaken for only one day each month. Examples of suitable programs in Ionospheric Physics are: oblique incidence pulse transmission and reception; absorption measurement by pulse reflection technique; extended observing schedule for whistlers and V.L.F. emissions; analysis of vertical sounding ionograms by f-plot, h'-plot, etc.; hourly reduction from ionograms of F-region true height parameters "hc" and "qc". It is recommended that exchange of copies of original ionograms in ionospheric vertical sounding work be made for the RWD with highest priority.

3. **World Geophysical Intervals (WGI)** are intended for experiments which for practical reasons cannot be carried on continuously, but for which statistics of seasonal variations are especially needed. The choice of intervals has been heavily influenced by the needs of the meteorology discipline. The intervals in 1963 are placed about a month after the equinoxes and solstices which are times of marked seasonal change in certain upper air meteorological phenomena. The co-ordinated international programs for meteorology call for extra effort in synoptic rocket sounding and balloon sounding during the WGI. Other programs such as ionospheric drift and high atmosphere wind measurements are other examples of suitable programs for such intervals.

4. **Other Special Days** marked on the Calendars include rocket-winds days, the days of solar eclipses, and days of unusual meteor shower activity. The **rocket-winds** days (Feb. 24, 25, 26) have been selected by COSPAR for a series of simultaneous rocket measurements of winds in the lower ionosphere (up to about 200 km) by techniques such as grenades, sodium clouds and visible grenade glows. COSPAR further recommends that simultaneous ground-based measurements by radio methods also be made on these dates. The **solar eclipses** (Jan. 25, July 20, 1963; Jan. 14, 1964) are occasions when special programs may be expected to be carried out in appropriate parts of the world to study the sun and any eclipse effects on the earth-atmosphere. The geomagnetism discipline has called special attention to these eclipses. Ionospheric stations customarily increase their observing programs even if the magnitude of eclipse at their location is small. Many solar activity observatories take extra observations and issue specially detailed reports to assist the interpretation of the geophysical effects. The days with unusual **meteor shower** activity include some of the important visual meteor showers and also unusual showers observable mainly by radio and radar techniques. Attention is called to these days in case ionization produced by meteors may account for unusual effects in other geophysical experiments. The annual **World Meteorological Day**, selected by the W.M.O. as March 23 (not marked on the Calendar), was first celebrated in 1961. Its purpose is to make the services which national meteorological services can render to the various branches of economic development, as well as the activities of the World Meteorological Organization, better known and appreciated by the public of all countries.

5. **World Days for the International Years of the Quiet Sun, 1964-65.** This present Calendar also shows January 1964 which is the first month of IQSY. This month therefore shows a pattern of world days which is somewhat different from 1963, but which will be followed in the International Geophysical Calendars for the IQSY period. The **Regular Meteorological Days** are each Wednesday (U.T.) on which it is recommended that particular efforts be made to obtain the maximum quantity of data, including rocket ascents and ozone radiation sonde ascents, as well as maximum altitude balloon ascents at 0000 and 1200 U.T. The **World Geophysical Intervals** for IQSY have been extended to cover 14 days.

6. **Special Intervals not appearing on Calendar**—Periods of great magnetic, auroral and ionospheric disturbance are also of considerable geophysical interest. World-wide co-ordination of observation is especially useful for stations not near the auroral zones, that is, places where the beginning of a major disturbance may not be immediately apparent from local observations. Notices of Geophysical Alerts and Special World Intervals (SWI) are distributed by telegram or radio broadcast on a current basis by the solar-geophysical Regional Warning Centers of the I.U.W.D.S., whose telegraphic addresses are as follows:

AGIWARN WASHINGTON (U.S.A.); DEMA KOKUBUNJI (Japan); NIZMIR MOSCOW (U.S.S.R.); IONOSPHERE DARMSTADT (G.F.R.) or GENTELABO PARIS (France) or AGI NEDERHORSTDENBERG (Netherlands). The meteorological telecommunications network co-ordinated by W.M.O. carries such information once daily soon after 1600 U.T. Many geophysical stations increase their programs or carry on special experiments during disturbed periods. Prompt notification of immediately significant geophysical observations and of major solar flare events which have important and sometimes long lasting geophysical effects, are also undertaken through the Regional Warning Centers.

7. **The International Ursigram and World Days Service** (I.U.W.D.S.) is a permanent service of the International Scientific Radio Union (U.R.S.I.), adhering to the Federation of Astronomical and Geophysical Services of the International Council of Scientific Unions (I.C.S.U.). This Calendar has been drawn up by A. H. Shapley and J. V. Lincoln in consultation with interested I.C.S.U. unions and committees, and representatives of the W.M.O. A fuller description of such Calendars has appeared in the U.R.S.I. Information Bulletin and various widely available scientific publications.

International Geophysical Calendar 1963

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1963 **JANUARY**

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1963 **FEBRUARY**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

1963 **MARCH**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

1963 **APRIL**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

1963 **MAY**

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1963 **JUNE**

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

1963 **JULY**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1963 **AUGUST**

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1963 **SEPTEMBER**

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

1963 **OCTOBER**

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1963 **NOVEMBER**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

1963 **DECEMBER**

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1964 **JANUARY**

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

- ⑰ Regular World Day (RWD)
- ⑱ RWD with highest priority
- ☐ Day of Solar Eclipse
- ◇ Rocket-winds Days
- 7 Day with unusual meteor shower activity
- △ Regular Meteorological Day

16 17 18 19 ... World Geophysical Interval, (WGI)