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## Locusts, other migratory pests and emergency operations group

# DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 69 MAY - EARLY JUNE 1984

### Summary

The general Desert Locust situation remains calm. There were wide-spread scattered adults in Pakistan and small numbers in India, People's Democratic Republic Yemen, Egypt and Libya. There has been moderate to heavy rain in north-eastern Africa and southern Arabia, and in West Africa the monsoon has given above average rains in several areas.

## DESERT LOCUST SITUATION, MAY - EARLY JUNE 1984

### WEST AFRICA

#### Meteorology

Following the unusually heavy rains in Chad in late April and early May reported in Summary No. 68 the skies cleared on 3 May. Subsequently although the ITCZ moved irregularly northward, the area to the north of 17° was generally dry and sandstorms were reported, particularly in Mauritania and Mali. In Mauritania Kiffa recorded 7 mm during the first decade of May and Zouerate and Aleg 3 mm during the second decade. OCLALAV confirmed rain in the area 173°N/085°W, 1718°N/0928°W from 14 to 16 May and to Zouerate (224°N/124°W). In Mali Tombouctou recorded 39 mm during the third decade. Further south rainfall was above average at a number of stations: Niamey recorded 69 mm compared with the long term mean of 23 mm; Kedougou recorded 91 mm (60 mm); Segou 106 mm (20 mm), Bamako 117 mm (60 mm), Sikasso 126 mm (122); Bobo Dioulasso 173 mm (116 mm) and Gao 246 mm (139 mm).

In early June Meteosat revealed important thermo-convective thundery cloud masses and Atar recorded 13 mm on 1 June, and Kiffa recorded 18 mm on 2 June. This was a typical Atlantic disturbance which extended across the Sahara with an extension to the Mediterranean where it persisted throughout the first decade of June. On 5 June OCLALAV reported that the ITCZ had reached 20°N in Mali, which resulted in rains in the region of Tombouctou, Gao and Tessalit, and that in Mauritania it reached 15°-18°N from the Atlantic to 10°E.

Midday temperatures were generally in the range of 33-43°C in interior areas and 23-33°C in coastal areas.

#### Breeding conditions

According to the latest NOAA/AVHRR imagery, for 11-20 May, breeding conditions remained unfavourable north of 17°N.

#### Locusts

No surveys were undertaken and there were no reports of locusts.

### NORTH-WEST AFRICA

#### Meteorology

The region experienced rainy and exceptionally cool conditions during May. Frequent heavy and at times thundery rains associated with abnormally low temperatures, particularly in northern Morocco, Algeria and Tunisia were due to Atlantic disturbances directed by a stable anticyclone over the Azores.

Among significant rainfall totals received from the Moroccan National Meteorological Directorate were the following: 20 mm at Beni Mellal on 1 May, 23 mm at Tangiers on 2 May, 27 mm at Kenitra on 3 May, 35 mm at Ifrane on 8 May, 36 mm at Kenitra on 9 May, 28 mm at Fez on 10 May, 19 and 30 mm at Rabat on 17 and 18 May, 47 mm at Tetouan on 19 May and 42 mm at Ifrane on 20 May. Subsequently, rainfall progressively decreased and the weather became dry in the first half of June.

In Algeria there were some light rains in the Sahara e.g. at Bechar, Djanet and Tamanrasset but there were moderate to heavy rains in the north; Algiers recorded 43 mm on 31 May.

In Tunisia, not only the north but also central and southern areas seem to have received substantial rains. In southern Tunisia few rainfall totals are available but this was compensated for by Meteosat imagery which showed the passage of rainy disturbances. These also affected Libya, but maximum rainfall total according to the GTS was 3 mm at Tripoli on 18 May. Strong winds associated with thundery disturbances resulted in several sandstorms.

In Libya daily maximum temperatures were frequently between 38° and 44°C in the interior, while in coastal regions they were sometimes in the region of 20°C. Similarly in Morocco, Algeria and Tunisia, in coastal areas, maximum temperatures were frequently below 20°C while in the Sahara they sometimes exceeded 40°C.

#### Breeding conditions

According to NOAA/AVHRR imagery for 11-20 May there were no areas which provided favourable breeding conditions for the Desert Locust within the recession area.

#### Locusts

##### LIBYA

In April hatchlings were reported from the Serir agricultural project, which were put under control. In May, small numbers of adults were reported from Kufra.

### EASTERN AFRICA

#### Meteorology

In spite of major gaps in synoptic data from Sudan, the northward progression of thundery clouds accelerated during the second half of May according to Meteosat imagery and temporarily affected the Khartoum area.

As reported in Summary No. 68 the prolonged drought over much of the Horn of Africa and Ethiopia broke in late April and early May. In Somalia the GTS reported local thundery rains coming from the Indian Ocean many times during May. DLCO-EA reported moderate rainfall in the Hargeisa area

in the first decade and 48 mm in the third decade. Djibouti reported rain several times after 11 May, including 29 mm on 18 May and 104 mm on 19 May, though the latter figure is suspect. In Ethiopia thermoconvective and thundery instability developed over highland areas, the rift valley and Railway Area. Direedawa\* received moderate rains during the first decade, 34 mm on 12 May and 20 mm during the third decade, Awassa received 23 mm on 20 May, Addis Ababa 46 mm on 29 May and on 4 June thundery activity continued, Bahar Dar recording 23 mm.

In East Africa thermoconvective and thundery instability did not appear to be very active as daily rainfall totals rarely exceeded 20 mm. Meru, however, recorded 43 mm on 15 May.

Maximum temperatures frequently exceeded 40°C in the interior of Sudan; in coastal reas of Ethiopia they exceeded 35°C and in the highlands they reaced 17-25°C; in Djibouti they varied between 30 and 35°C, while in Somalia they varied between 25°C in coastal areas to nearly 40°C in the interior.

#### Breeding conditions

According to NOAA/AVHRR imagery for 11-20 May and the DLCO-EA report for 1-10 May, conditions were unfavourable for breeding in coastal and sub-coastal areas. In the last decade vegetation was becoming green in the Hargeisa area and Djibouti.

#### Locusts

##### ETHIOPIA

Two adults were captured at lights at Asmara on 29 and 30 May.

#### NEAR EAST

#### Meteorology

The thermal quasi-permanent low pressure area was reactivated several times due firstly to the arrival of Mediterranean depressions and, secondly, to the influence of thermoconvective instability originating in Eastern Africa. The position of the Red Sea Convergence Zone in turn varied between 15° and 20°N. According to the GTS thunderstorms gave the following amounts of rain: 12 mm at Khamis Mushait and 13 mm at Bisha on 11 May; 13 mm at Najran and 24 mm at Khamis Mushait on 13 May; 53 mm at Khamis Mushait on 15 May and 15 mm at Bisha on 1 June. The FAO Regional Locust Officer, Jeddah, also reported light rain in Shagra, Dawadmi, Taif, the Asir and Jizan.

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\* In Summary No. 66 it was reported that Direedawa had received 165 mm on 29 February. The Ethiopian National Meteorological Service have written to state that the actual total was 8.2 mm.

In Yemen PDR there were widespread heavy rains over the mountains during the second and fourth weeks of May, causing flooding in coastal wadis but GTS data only indicate light rains of 0.5-5 mm in Yemen PDR and Oman. Meteosat imagery clearly illustrated the variability and localisation of these rains.

Daily maximum temperatures were frequently around 33°C in coastal areas and 43°C in the interior.

#### Breeding conditions

According to the latest NOAA/AVHRR imagery, for the period 11-20 May, breeding conditions were unfavourable in southern Arabia. The Yemen PDR report, however, states that conditions had become favourable for breeding in the summer breeding area by late May.

#### Locusts

##### PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Small numbers of adults and green fourth to fifth instar hoppers at a density of 1 per 2 bushes were seen at Al-Harur (1314N/4512E) on 8 May over an area of about 1 square kilometre. A small number of adults was seen at Masib (1328N/4631E) on 21 May.

##### EGYPT

Isolated individuals were reported from the south-eastern desert.

No locusts were reported from other countries in the Region.

#### SOUTH-WEST ASIA

#### Meteorology

According to Meteosat imagery, Iran was affected by several disturbances coming from the Mediterranean which were accompanied by local thunderstorms. No GTS data are available. Concerning the Indo-Pakistan sub-continent, there were light rains in Quetta and Nushki in the second week of May and heavy rain again at Quetta on 3 June. Further south the monsoon progressed northwards, particularly in June. On 13 June there were thunderstorms at Bhuj-Rudramata and Jaisalmer but rainfall did not exceed a few millimetres. On 15 June, however, Rajkot and Veraval in Gujarat reported 58 and 108 mm respectively.

Maximum daily temperatures in India and Pakistan were generally between 35° and 45°C, while in Afghanistan they were often 35°-45°C.

#### Breeding conditions

According to ground reports conditions were generally dry, except in some low lying areas in Baluchistan of Pakistan.

Locusts

PAKISTAN

In the first half of May scattered adults were observed at 38 localities in Uthal, Turbat, Pasni, Panjgur, Quetta, Nushki and Khuzdar, the maximum density being 900 per square kilometre at Kasan Koori on 8 May. Preventive control was undertaken against solitary first to third instar hoppers in cultivations at Hurmagai (2817N/6427E) in Kharan district, using 25 kg of 12.5% BHC dust over 50 hectares. In the second half the maximum density of adults was also 900 per square kilometre, at Rudimashkail (2722N/6410E) in Chagai district.

INDIA

No locusts were seen in the first fortnight of May. Scattered locusts were seen in Bikaner district in the second half.

No locusts were reported from AFGHANISTAN or IRAN.

FORECAST FOR JULY - AUGUST 1984

The peak period for the onset of summer breeding occurs during the forecast period. Adult population levels remain low in the western and central regions due to poor rains in summer 1983 and winter-spring 1983-84 respectively. Widespread adults have been reported from Pakistan recently and they are sufficiently numerous to give rise to hopper groups and even small bands and swarms towards the end of the forecast period in areas which provide favourable breeding conditions.

In South-West Asia numerous adults will reach the summer breeding areas in Cholistan, Nara, Khipro and Tharparkar deserts of Pakistan and Rajasthan and perhaps Gujarat in India. Breeding will commence in areas receiving rainfall; if the latter is localised groups of adults could form in the present generation and give rise to hopper groups or even bands and small swarms towards the end of the forecast period. If the monsoon rains are widespread there could be much more widespread breeding but gregarisation would be delayed. Small-scale breeding could also occur in Uthal district but no large scale immigration from the West is likely.

In the Near East, initially low density breeding may be widespread in Yemen PDR, eastern Yemen Arab Republic and the interior of southern Saudi Arabia and could result in the formation of some hopper groups in particularly favourable areas. Elsewhere, small numbers of adults may persist on the Tihamas of Saudi Arabia and the Yemen Arab Republic and some adults may persist in the Hijar mountains and in the interior.

In Eastern Africa, low density breeding will occur in the interior of Sudan and may be widespread. Some group formation may occur in particularly favourable sites. Small numbers of adults are likely to be present on the northern coastal and sub-coastal plains of Somalia and small-scale breeding may occur in areas receiving summer floods.

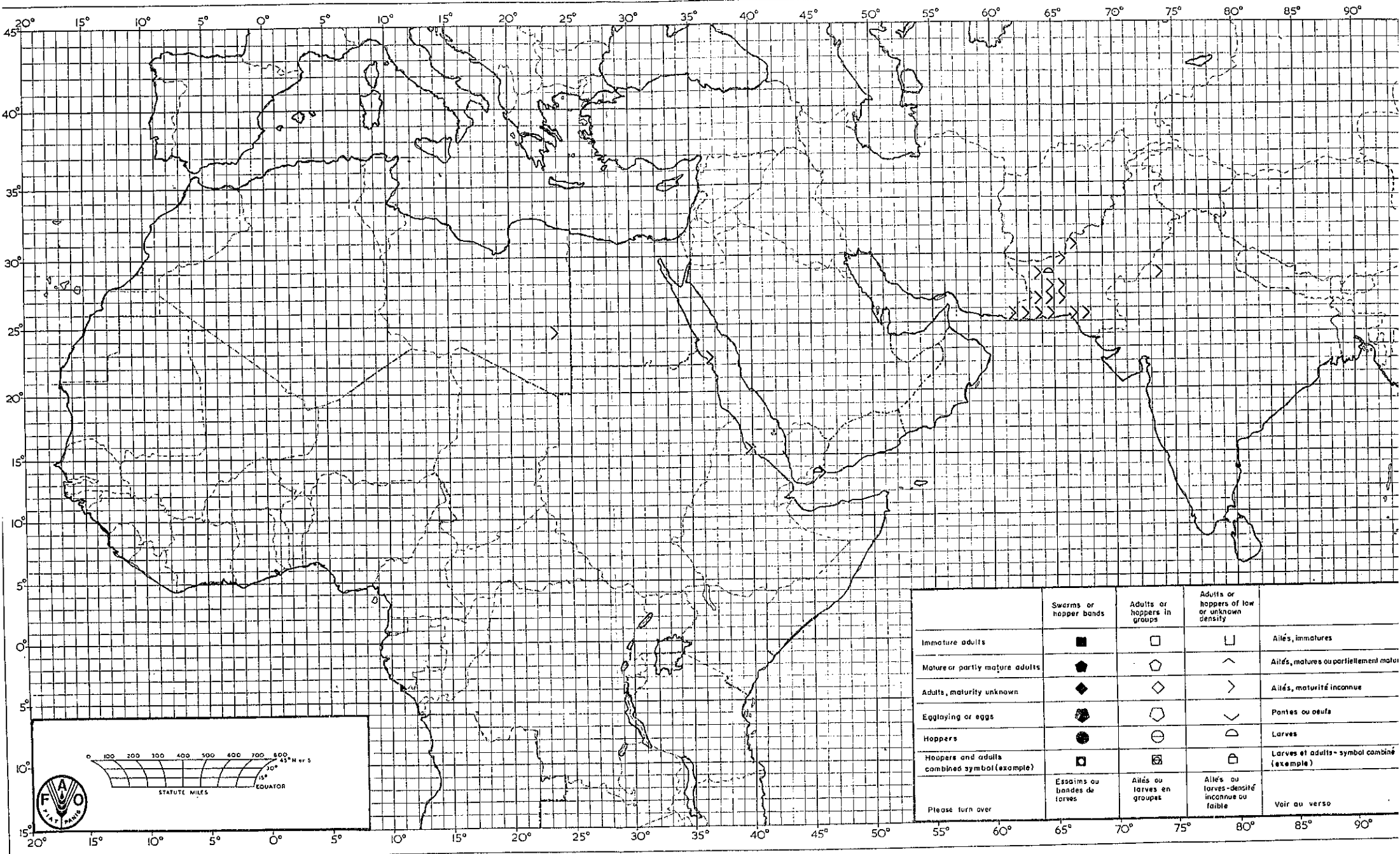
In Western Africa numbers of adults are low but these could be concentrated into a few relatively small areas by north-south oscillations of the ITCZ and if the early monsoon rains are restricted in extent. Breeding will commence; most will be at low density but groups may form in areas where adults have concentrated.

In North-West Africa the situation will be generally calm although some breeding may occur in Libyan oases.

Rome  
21 June 1984

The maps for Summaries No. 67 and No. 68 are attached to this Summary.

# Desert Locust Situation Summary No. 69 MAY - EARLY JUNE / MAI - DEBUT DE JUIN 1984



	Swarms or hopper bands	Adults or hoppers in groups	Adults or hoppers of low or unknown density	
Immature adults	■	□	◻	Ailés, immatures
Mature or partly mature adults	◆	◊	◀	Ailés, matures ou partiellement matur
Adults, maturity unknown	◆	◊	>	Ailés, maturité inconnue
Egg laying or eggs	●	◉	∨	Pontes ou oeufs
Hoppers	●	◉	∩	Larves
Hoppers and adults combined symbol (example)	◼	◻	◻	Larves et adults - symbol combiné (exemple)
Please turn over	Essaims ou bandes de larves	Ailés ou hoppers en groupes	Ailés ou larves - densité inconnue ou faible	Voir au verso

