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## Locusts, other migratory pests and emergency operations group

# DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 58 JUNE - EARLY JULY 1983

### SUMMARY

Despite control operations in the People's Democratic Republic of Yemen at least one swarm was produced from breeding and further breeding must be expected. Control operations also continued in the United Arab Emirates and only small numbers of adults persisted at the end of June. There were widespread low density adults in Pakistan and India and some pre-monsoon breeding in Rajasthan. Small numbers of locusts, species unconfirmed, were reported from Oman. There were no reports of locusts from West and North-West Africa but locally conditions are favourable for breeding in southern Algeria, north-east Mali, Air of Niger and Mauritania.

## DESERT LOCUST SITUATION, JUNE - EARLY JULY 1983

### WEST AFRICA

#### Meteorology

The Intertropical Convergence Zone (ITCZ) continued its move toward 20°N and was characterized by a wave over Mali. This explained several significant storms associated with the monsoon in the Sahel, particularly during the second decade of June. The following rainfall was reported via the Global Telecommunications System (GTS): 20 mm at Tessalit, 26 mm at Ouahigouya, 62 mm at Tambacounda and 68 mm at Niamey on 19 June. The start of the third decade was also marked by some significant rain: on 22 June Niamey recorded 26 mm and Kita 57 mm. These rains, locally above average, were confirmed by decade totals provided by the FAO Agricultural Meteorology Group (AGPC). During the second decade in Mauritania, Aicun el Atrouss recorded 59 mm, Kiffa 54 mm; in Senegal Matam recorded 30 mm, Thies recorded 43 mm and Tambacounda 86 mm; in Mali Niore du Sahel recorded 56 mm, Kayes 131 mm and Koutiala 121 mm; in Upper Volta Fada N'Gourma recorded 101 mm and Boromo 74 mm; in Niger Niamey recorded 120 mm compared with the long term average of 23 mm.

The progression of the ITCZ was accompanied by sandstorms, in particular on 14-15 June in the region of Tessalit, on 9 June around Gao, on 4-7 June around Tidjikja.

At the end of June several storms were reported from Mauritania; Tidjikja recorded 6mm of rain on 27 June.

Midday temperatures were generally in the range 38-43°C, except in coastal areas of Mauritania, Senegal and Gambia where they were generally about 30°C.

#### Breeding Conditions

AVHRR imagery for 6 July revealed large areas of green vegetation in north-east Mali extending from Gajiet to the Algerian border and in a swath extending from 1835N 7°E to 1820N/0820E.

#### Locusts

No locusts were reported.

### NORTH-WEST AFRICA

#### Meteorology

Remnants of Atlantic disturbances affected the Maghreb but GTS data indicated only small amounts of rain. Djanet received 2 mm on 1 June, Tamanrasset 1 mm on 3 June. Coastal areas of Morocco and Algeria received only small amounts of rain in the first decade of June; coastal areas of Libya between Benina and Jamal Abdel Nasser received rain on 9-10 June, while Tunisia received rain on 12-13 June. The generally dry weather was due to ridges of high pressure associated with the Azores anticyclone and high pressure over Europe. Later, clouds, at times abundant, reported by the GTS and confirmed by Meteosat imagery gave rise to only a single stormy tendency without any significant rain. For completeness the following rain was reported via the GTS: Tebessa (Tunisia) received 17 mm on 21 June and Nalut (Libya) 8 mm on 25 June.

Maximum temperatures exceeded 40°C in the Sahara while in coastal areas they were generally 25-30°C but with extremes of the order of 35°C, particularly in Libya.

### Breeding Conditions

AVHRR imagery for 6 July revealed large areas of green vegetation in the extreme south of Algeria, 19°N, 3-4°E and another area between 19°40'N, 4°E to 19°40'N, 5°E.

### Locusts

No locusts were reported.

## EASTERN AFRICA

### Meteorology

It will be recalled that synoptic data from the Sudan are rarely received via the GTS. Nevertheless sandstorms were reported on 5 and 6 June and midday temperatures exceeded 40°C. In Ethiopia, in spite of gaps in the GTS data, a quasi-permanent stormy tendency was noted: it was particularly marked on 7, 10 and 16 June. According to GTS data daily rainfall totals did not exceed 15 mm. On 30 June storms were reported from Asmara. In Somalia, Hargeisa received 12 mm during the second decade of June. Midday temperatures were generally in the range 30-35°C but fell to about 25°C during rain storms.

In Uganda, Tanzania and Kenya convective instability gave rise to local storms. The Servizio Meteorologico (Rome) received the following information on rainfall via the GTS: 5 mm at Kitale on 1 June, 8 mm on 4 June and 43 mm on 12 June, while Mombasa recorded 48 and 26 mm on 4 and 5 June respectively. Midday temperatures were generally in the range 25-30°C although sometimes exceeding 30°C.

### Breeding Conditions

AVHRR imagery for 10 July indicates that conditions were generally unfavourable for breeding along the Red Sea and Gulf of Aden.

### Locusts

No locusts were reported.

## NEAR EAST

### Meteorology

The area of quasi-permanent relatively low pressure situated over the Arabian peninsula and some troughs produced sand-storms but no rain except for 4 mm at Medina on 2 June and 8 mm at Badana on 3 June. A stormy tendency was very clear along the Tihama but no rainfall amounts were provided by the GTS.

Maximum daily temperatures varied from about 35°C along coasts to 45°C in the interior (the latter value being exceeded locally.)

### Breeding Conditions

AVHRR imagery for 10 July indicates that conditions were locally favourable for breeding in Yemen PDR both in coastal areas east of Aden and in some interior areas and as confirmed by ground reports.

### Locusts

#### PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

On 4 June high density solitarious adults mixed with *Locusta* were observed copulating in scattered Sorghum fields between Bir-Masal (13°25'N/45°59'E) and Al-Khabr (13°25'N/46°08'E). On 25 June medium-large fifth instar hopper bands with fledglings were observed in patches scattered over 30 sq km 6 km east of Ahwar.

These were sprayed using exhaust nozzle sprayers from 25-29 June. On 26 June low density solitary immature adults and greenish second to fifth instar hoppers at a density of 1-2/bush were seen over 2 sq km in the Rahbah area of Masib (1330N/4635E).

From 29 June - 5 July further hopper bands and fledglings were sprayed over 40 sq km in the Bir Faddle and His Bilaid (1333N/4658E) area and a further 10 sq km were sprayed in the Masib area (1330N/4635E) on 4-5 July. On 6 July high populations of second to fifth instar solitarious hoppers and adults were sprayed in the El Khaber (1325N/4608E) area. A total of 937 hopper bands and 203 groups of adults and fledglings were controlled. 1491 litres of 20% dieldrin were sprayed.

In the Hadhramaut, low density scattered adults were reported between Saiyun and Tarim on 26 June. A swarm of unknown dimensions was reported at Khashaah (1546N/4804E) on 6 July and possibly the same one at Qatn (1551N/4837E) displacing east on 9 July. A Locust Officer visited both areas on 10 July but could find no traces of the swarm.

High density third to fifth instar Locusta hoppers with a wide range of coloration and fledglings were controlled using BHC bran bait over 1 sq km at Nabiyah (1244N/4339E) on 6 June.

#### YEMEN ARAB REPUBLIC

Small numbers of solitarious adults were observed at Makboulia, Salmania and El Khadra in the Bajel area in June.

#### SULTANATE OF OMAN

Small numbers of locusts, species unknown, were reported from the Ghubrat Tamuf area (2303N/5725E) in early June.

#### UNITED ARAB EMIRATES

Control operations continued throughout June against the remnants of the swarm first reported on 22 May (see Summary No. 57) in the Dhaid, Falaj Mualla, Al Madam and Alawir areas. A total area of about 1100 ha were sprayed during May and June. Adult densities in agricultural areas at the end of June ranged from 4-20 per farm of an average area of 3 ha except for some farms near Alawir where the density reached over 1000 per farm. In desert areas the densities have dropped from 500-1500/ha to 10-100/ha as the vegetation has dried up and the adults have emigrated.

#### GULF OF ADEN

Six isolated grey locusts flying west were reported from a ship at position 1225N/4708E at 1207 hours GMT on 12 July.

There were no reports from elsewhere in the Region.

### SOUTH-WEST ASIA

#### Meteorology

During the first decade of June important rains were essentially restricted to localities in southern and eastern India while western India and Pakistan had warm and relatively dry weather.

In the second decade some convective rain occurred over northern India, particularly at New Delhi, while from 15 June the monsoon affected Bombay bringing 15-30 mm of rain daily.

Ground teams reported local but important rains at Bahawalpur where 50 mm was recorded on 10 June while moderate to light rains were reported from Dera Murad Jamali, Rahimyar Khan and Turbat during the second week of June. On 10, 14 and 16 June a severe dust storm from the north affected Bahawalpur and Rahimyar Khan.

During the third week heavy rain fell throughout Cholistan and there were scattered rains in the Thaparkar and Nara deserts. There were generally light rains over Rajasthan during the first and second fortnights of June. Barmer recorded a trace, Jaisalmer 43.5 mm, Jodhpur 12.0. Sriganganagar 23.8, Sikar 14.1 mm and Bikaner 56.2 mm. From 19-24 June a secondary depression, with some mesometeorological components apparently associated with the monsoon, led to catastrophic rains and floods and loss of life in Gujarat. During this period Surat received 264 mm, Bombay 186 mm and Vereval 152 mm according to GTS data. Violent winds from the south and south-west accompanying the squalls were reported from coastal regions. On 2 July there was further heavy rain at Surat. 1200 hr GMT temperatures had values between 35-47°C in interior areas and 30°C in coastal areas.

#### Breeding Conditions

No AVHRR imagery is available for June or early July.

#### Locusts

##### PAKISTAN

In the first half of June scattered adults were found at 17 localities in Uthal, Mirpurkhas, Sukkur, Rahimyar Khan and Bahawalpur districts at a maximum density of 2100/sq km at Gurash (2921N/6813E).

In the second fortnight of June scattered adults were recorded from 26 localities in Mirpurkhas, Uthal, Sukkur, Dera Murad Jamali and Rahimyar Khan districts at a maximum density of 2500/sq km at Rinhal (2813N/7106E).

##### INDIA

During the first fortnight of June small numbers of immature, maturing and mature adults were found at 22 localities in Barmer, Bikaner, Jaisalmer and Jodhpur districts, the maximum density being 1500/sq km at Mahihara (2609N/7035E) on 2 June. During the second fortnight scattered adults were found at 48 localities in Barmer, Bikaner, Jaisalmer, Jodhpur and Nagaur districts, at a maximum density of 5625/sq km. In addition small patches of fourth and fifth instar hoppers were detected in an area of one sq km at Kelawa (2655N/7148E) in Pkaran Tehsil of Jaisalmer districts on 30 June. Control operations were being organized.

IRAN was reported clear in June. AFGHANISTAN in May.

#### FORECAST FOR AUGUST-SEPTEMBER 1983

The forecast period marks the peak of summer breeding.

In West Africa conditions have become favourable for breeding in Tamesna of Mali and to the west of Afr in Niger. Any locusts which overwintered in the southern Sahara and any which may have reached these areas from North-West Africa, Western Sahara or northern Mauritania will have started to breed and will almost certainly commence a second summer generation during the forecast period. This could lead to the formation of hopper groups and possibly bands. Breeding on a similar scale is also likely in central and southern Mauritania.

In North-West Africa there are favourable breeding conditions in the extreme south of Algeria and some breeding is likely to occur, which may produce hopper groups and, possibly, bands.

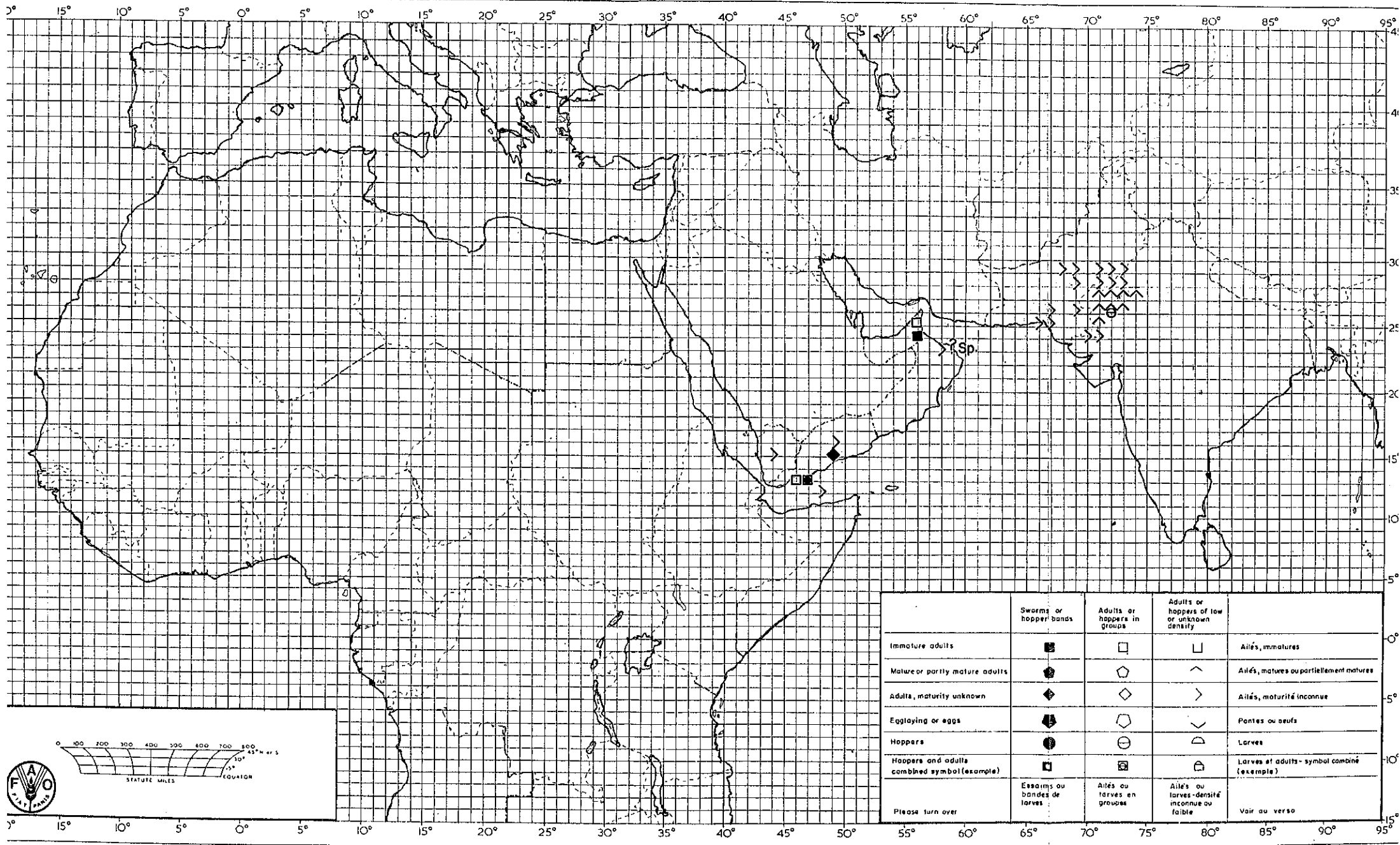
In Eastern Africa there is likely to be widespread low density breeding in the interior of the Sudan and perhaps in the western lowlands of Eritrea. The two reports of swarms from Yemen PDR suggest that considerable numbers of adults may be available to be wind-drifted to north-west Somalia, Djibouti and/or Eastern Ethiopia during the forecast period.

In the Near East conditions are locally favourable for further breeding in the Yemen PDR and further breeding, much of it gregarious, must be expected and more swarms may be produced towards the end of the forecast period.

In South-West Asia the main summer breeding is likely to be widespread in Rajasthan of India and the Cholistan, Nara, Khipro and Tharparkar deserts of Paksitan. Most of it will be at low density but in areas which received good early summer rains some groups may form.

Rome 21 July 1983

# Desert Locust Situation Summary No. 58 JUNE - EARLY JULY / JUIN - DEBUT DE JUILLET



	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 matures
Adults, maturity unknown	◆	◇	>	Ailés, maturité inconnue
Egg laying or eggs	◼	◊	∨	Pontes ou oeufs
Hoppers	●	⊖	∩	Larves
Hoppers and adults combined symbol (example)	◼	⊖	⊖	Larves et adultes - symbol combiné (exemple)
Please turn over	Essaims ou bandes de larves :	Ailés ou larves en groupes	Ailés ou larves - densité inconnue ou faible	Voir au verso

