2011

SWAC/CRC
INTER-REGIONAL WORKSHOP FOR
DESERT LOCUST INFORMATION OFFICERS

17-19 May 2011

Cairo, Egypt

Commission for Controlling the Desert Locust in South-West Asia (SWAC)
Commission for Controlling the Desert Locust in the Central Region (CRC)
Desert Locust Information Service (DLIS)

SWAC/CRC Inter-regional Workshop for Desert Locust Information Officers

17-19 May 2011 (FAO/RNE, Cairo)

The FAO Senior Locust Forecasting Officer, Keith Cressman, and one regional resource person (Hichem Dridi, FAO/CLCPRO) conducted the workshop that brought together English-speaking national locust information officers from nine countries and two regional locust organisations in the Central and Eastern Regions[1]. Due to unforeseen circumstances, Sudan, Somalia and several resource persons could not attend. Two persons from IRLCO-CSA participated this year to familiarise themselves with the Desert Locust early warning system as an initial step in modernising and improving their own system under the guidance of FAO. The workshop was originally scheduled for March 2011 but due to unexpected national developments, it was postponed by two months.

Usually the same participants attend the workshop, which allows issues to be followed in a consistent manner and their progress measured. As in previous years, the objective of the workshop was to discuss informally the improved use of various technologies (eLocust2 for data recording and transmission from the field, eLocust2Mapper for data processing, RAMSES geographic information system for data management and analysis, and remote sensing imagery (MODIS for green vegetation and IRI for rainfall estimates)) and introduce new technologies used by participants in locust surveillance, early warning and reporting.

This year, the new NOVACOM GeoFlex web interface, dynamic greenness maps, GoogleSites, and the use of social media (Twitter and Facebook) were presented. Participants also provided useful feedback on improving each other's national bulletins. Daily work and data flows were presented and reviewed.

The three-day workshop was an informal event without an agenda or timetable, which allowed all issues to be discussed in a very open manner. As in previous workshops, participants were asked to indicate what they wanted to achieve during this year's event and to indicate problems they face in the use of these technologies in their daily work. All problems were resolved on the spot. It was clearly evident that all countries have made substantial progress in improving the use of the various tools and technologies used in locust early warning.

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[1] DLCO-EA (Elias Felege, Mehari Tesfeyanous), Egypt (Osama Taha, Osama Rabie), Eritrea (Hebtemichael Soloman), Ethiopia (Hiwot Lemma, Konjit Feleke Belete), India (Pramod Gour), Iran (Babali Fashki), IRLCO-CSA (John Ngondi Katheru, Emmanuel Elalio Imanshi), Oman (Khalid Al-Harrasi), Pakistan (Ghulam Baloch, Shahbaz), Saudi Arabia (Abdullatif AbdulSalam, Yehia Khawagi), Yemen (Adel Al-Shaibani, Ahmed Al-Eryani), resource person: Hichem Dridi (CLCPRO)

Main issues

A. Field
    (1) eLocust2
    (2) GPS
    (3) Form
    (4) radios
B. Locust Information Office
    (1) Novacom
    (2) eLocust2Mapper
    (3) RAMSES
    (4) MODIS/RFE/Greenness maps
    (5) Bulletins/Alerts
    (6) PC management / Internet
    (7) Google Sites / Earth
C. FAO DLIS
    (1) Twitter / Facebook

Problems and solutions

<u>eLocust2</u>
Most of the problems faced were associated with poor data entry and interruption of the power supply during data transmission. Both issues should be addressed by proper and regular training of field staff. Egypt and Oman have developed battery powered eLocust2 units that allow survey officers to use eLocust2 away from the vehicle in areas that are only accessible by foot. Other countries were encouraged to adopt similar systems whenever necessary. Specific details:

- survey location away from vehicle – no problem; if need precision, use external battery
- incorrect coordinates – do not cut power; reinstall software; training
- no history after install new version – must save History.txt first before software installation, then reinstall in Data folder; use DelSoft v2.
- no serial port on PC, or connector mismatch – install serial card in PC; check with Novacom for serial/USB cable; connect eLocust2 to laptop via USB with USB-DB9 (RS232) cable and powered [2](220V/5V) USB hub; in vehicle, add a power converter (12V/5V)
- not in Arabic – not possible; training in English
- cannot enter comments – not possible; use Survey Form
- how to enter control of small bushes or patches – full cover; determine area treated from pesticide used, or number and size of patches treated
- weak cables – ask DLIS for more; ask Novacom for Wescor cable replacement (SAU, YEM, IRN, IND, OMN)
- slow/delay in transmission – due to satellite connection; move location; drive slow or stop when sending
- date/time incorrect – this is a processing issue: check Novacom, eLocust2Mapper and PC configuration
- slow GPS connection – normal for first reading so start up early
- can send data when moving – yes
- area survey/infested – estimate based on green vegetation at the survey stop, should not be more than 300 ha or so; it is only a rough estimate to indicate differences between big and small infestations
- how to manage delayed control in Novacom & RAMSES – use actual date of control; add control record to survey record in RAMSES

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[2] Install driver, go to My Computer / manage, configure port (57,600, X on/off, COM port number = COM1 or COM2), open WTerm – reset, copy CHOICE.exe (to see menu) and DelSoftE to Wescor

Novacom
A new platform user-interface was introduced by Novacom called GeoFlex, which replaces the original Novacom platform. Most of the problems regarding Novacom concerned this new platform. Additional functionality is required in the new user web interface: save map, change icons, current position, pop-up data menu (locust present, control ha, coordinates, last rain date, vegetation state, soil moisture), and colour coded legend of the six data menu items. Specific details:

- Always use GMT
- Teams should be properly trained to enter high quality data
- Activation M-F 8-17h
- Geoflex: save map? change icons? current position? Pop-up menu: locust present, control ha, coordinates, last rain date, vegetation state, soil moisture; color code legend of these items

eLocust2Mapper
In general, few problems were encountered with eLocust2Mapper; however, some modifications are required. Specific details:

- remove warning if area treated > area infested
- allow coordinate edits (new version)
- simulator control area is not same as control area in data (left side)
- include admin boundaries and towns

RAMSES
In general, few problems were encountered with RAMSES. Specific details:

- How to delete orphan control records
- Data summary only complete on following day

MODIS
In general, users must remember to zoom in on the MODIS image during analysis and when preparing maps for the national bulletins. Specific details:

- Always zoom in
- District maps for Pakistan
- Add caption for maps in bulletin
- Discolored maps

Greenness maps
The Senior Locust Forecast Officer demonstrated downloading and interpreting the new MODIS-derived dynamic greenness maps developed by the Université catholique de Louvain (Belgium). The product became available operationally last month from VITO. Some users did not receive their user name and password. Specific details:

- No user name/pwds: EGY, IND, SAU, ETH, IRN, DLC-HQ, YEM
- Colour table not embedded in geotiff

Bulletins
Within a peer process, participants and resources persons provided feedback and country-specific suggestions for improving their national bulletins:

- EGY - ecology/weather first, MODIS zoom and only one, 2 separate version EA, if no rain - no RFE, photo captions, main towns, no wadi layer except if zoom, scale position outside of map box, cover page, add forecast
- ERI - add title, contacts, resources
- ETH - add staffing, reorder month activities
- IND- consolidate header and contact, add Jodhpur email, no temperature and humidity in table, no RAMSES logo, no legend (use caption), no deg sq grid, add scale in map
- IRN - add forecast and capacity, add towns in map

- OMN- add quantity of resources, reduce front cover map, small overview map (RFE with regions) with larger MODIS zoom map, no MODIS, no scale et al, EA separate
- PAK - no duplicate maps, add resources, reorder (from summary to details section)
- SAU - no colored text, reduce bold and underline, move colour warning codes to cover page, no MODIS, control graph (liters, ha), replace coordinate lists with few sentence summary of what and where
- YEM - zoom MODIS, combine RFE+Surveys, no legend or logo, use caption
- Standardize: Intro/Summary, Weather/Ecology, Locust, Forecast, Resources, Activities/News, Regional situation, Distribution

Analysis
Participants were reminded that the auto-filter function in MS Excel can be used to help summarise data when preparing national bulletins.

New technologies
In addition to Novacom GeoFlex and greenness maps, the reporter explained the use of GoogleSites (for downloading latest software and files and as a forum to discuss technical issues), Twitter (for following the latest Desert Locust situation via Internet or mobile telephone), and Facebook (to share photos and comments on Desert Locust early warning; DLIS has created a Facebook page and countries were encouraged to do the same as a way to expand the exchange of locust information).

Computer issues
Incremental backups should be done on a daily basis to external disks or USB flash keys using Cobian or XP software. Folders and files should be well named and managed in an organised way so as not to lose data and make it easier to back up. Use anti-virus software, such as Avast!, that is free and does not slow down the system. An Internet connection is required to ensure that virus definition files are kept up to date.

Suggested improvements

- use good drivers and vehicles in desert
- use external battery if require precision in inaccessible areas
- IOR configuration in Pakistan and India
- Serial port card for PC, or DB9-USB cable with USB hub/converter for laptop
- Novacom – Wescor replacement cable?
- Novacom/GeoFlex: save map, change icons, hide tracks
- Properly trained field teams so they enter high quality data
- eLocust2Mapper control area mismatch in Simulator, import GeoFlex data
- Greenness maps – embed colour table, user names/passwords OK
- Standardize bulletins
- Upload H presentation & DelSoft2 to GoogleSite

Misc notes

India – gave RAMSES install on USB key
Yemen – gave Avast on USB key
Eritrea – gave eLocust2Mapper

Conclusion

The annual workshop is very useful because it brings national locust information officers together to exchange experiences, problems and solutions face-to-face rather than through the Internet or by other means. This helps to maintain a strong information network that is the foundation of preventive control and FAO's locust early warning programme.