GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

Guidelines for a technical cooperation programme in the monitoring of fishing vessels in the GFCM Area of competence

The Members of the GFCM are keen to cooperate in establishing and developing a data-gathering and data-sharing platform for all fishery activities of the GFCM's Area of competence. International instruments, both binding and non-binding, provide a basis for such a platform.

One of the principal characteristics of the GFCM Area of competence is its diversity: politically it brings together EU Member States, countries of the Arab Maghreb Union (AMU), and the recognized dividing line between Europe and Asia; that diversity continues to express itself in the cultural and economic differences among those countries.

Furthermore, in terms of natural resources, the region harbours breeding grounds for some of the highest-value species as well as a broad range of other fish stocks, many exploited by a broad range of artisanal fleets. Finally, all of this diversity, combined with a proportionally significant high seas area, confers upon the region very particular criteria for natural resource management.

The following guidelines were formulated by an expert group convened by the GFCM, in Rome on 25 April 2012.[1] They take this context into account and express the fundamental principles underlying the implementation and operation of a platform designed to provide the tools necessary to successfully manage living marine resources in the GFCM Area of competence.[2]

[1] The group was composed of the following experts: Ms Michele Kuruc and Ms Alicia Mosteiro (FAO), Mr Magdy Ahmed Abdou Abd Elwahed and Mr Ahmed El Tabey Mahmoud Hasanean (General Authority for Fish Resources Development of Egypt), Mr Alun Goode and Mr Gary Pearce (North Atlantic Treaty Organization), Mr José Navarro (European Fisheries Control Agency), Mr Harm Greidanus (Joint Research Center), Mr Tommaso Russo (University "Tor Vergata" of Rome), Mr Rino Coppola (independent expert), Ms Pilar Hernandez, Mr Robert Gallagher, Mr Federico De Rossi, Mr Roberto Emma and Mr Nicola Ferri (GFCM Secretariat). Mr Robert Gallagher acted as Chairperson of the expert meeting.

[2] In this document, the portions set in **bold characters** form the original document put forward by the group experts. The blue text and graphics are explanatory in nature and are provided by the VMS consultant engaged by GFCM.

- **1. GFCM Members recognize, both individually and collectively, their responsibility for the protection and sustainable exploitation of the living marine resources in the GFCM Area of competence. Furthermore, they recognize GFCM as the competent organization to coordinate and to manage the exploitation of living marine resources in that zone as a whole.**

Each Member State of the GFCM carries the responsibility for the stewardship and sustainable exploitation of its own national resources, but because of the density of the Mediterranean and Black Sea region, and the high concentration on national zones, the responsibility for that stewardship and responsible exploitation in the area as a whole requires a high level of cooperation of the Member States. The overall responsibility for this cooperation and stewardship belongs to the GFCM.

- **2. GFCM will harmonize its operations with other Regional Fisheries Management Organizations (RFMOs) around the world and particularly with those that neighbour and overlap with its Area of competence, as well as with its Members. This harmonization will also include the data formats and protocols used to exchange data between competent authorities and will incorporate such data procedures as are currently practiced in the countries of Europe, Northern Africa and Asia that define the Mediterranean and Black Sea basin. All technical choices and parameters in the implementation of the GFCM platform will consider parallel choices and parameters already established in the region.**

Regional fisheries management requires a high degree of cooperation with parallel organizations that are responsible for neighbouring regions and for specific species that are present in the region under management. In the case of the GFCM Area of Competence, such organizations would be ICCAT (International Commission for the Conservation of Atlantic Tuna) and the European Commission. Both of these organizations, as do a number of the GFCM Member States already benefit from functioning VMS. It is only logical, then, for GFCM to align its data gathering and sharing operations with the data standards and protocols already in use internationally, thus making the sharing of data a transparent activity.

- **3. In the case where GFCM would choose to integrate technical choices and parameters that have not yet been envisaged by the region, consultation between the GFCM and its Members would be established with a view to maintaining compatibility.**

The use of VMS and the sharing of data between regional and national organizations have increased over the past years. Should new data sets and uses of data require new standards for the GFCM area in the future, the secretariat will coordinate the creation of these standards with all interested countries and organizations so as to facilitate all of them moving forward, on equal footing, with no loss of compatibility.

- **4. All GFCM Members will establish a satellite-based national fishing vessel monitoring system (VMS) conforming to the recommendation GFCM/33/2009/7, such system to be operational by the end of December, 2012 (N.B. should geopolitical considerations present at the time of this writing prevent a Member from meeting this deadline, it is understood that the deadline will be modified to the earliest feasible date and in the interim the member state will make use of the GFCM central Fishing Monitoring Centre (FMC) when operational, see point 6 below).**

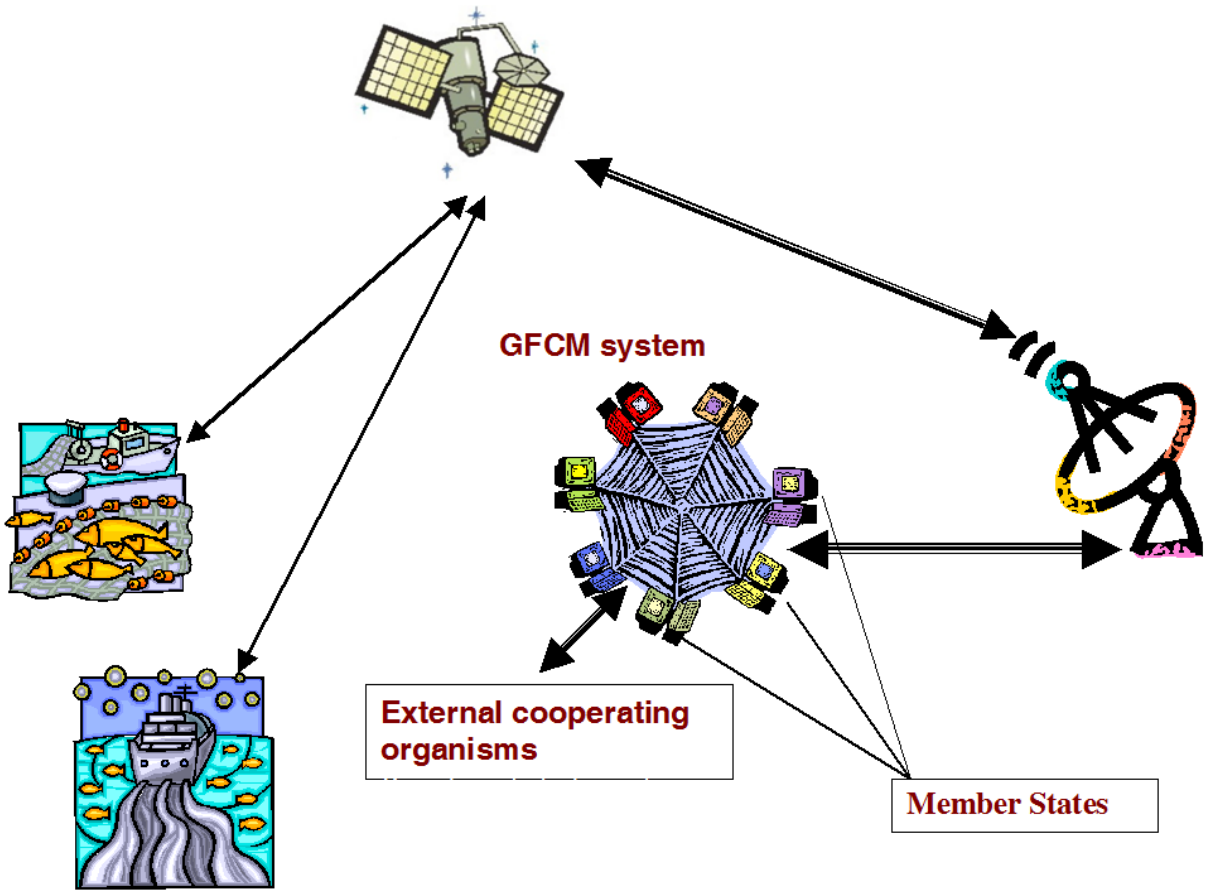
GFCM recognizes that the recommendation for a working VMS by all Member States by the end of this year could, in some cases, prove ambitious. An interim solution is proposed in point 6 below.

- **5. It is of paramount importance, that GFCM Members pay due attention to the full development and implementation of their national fishing vessel register systems which will constitute the basis for their VMS system. National register data must also be fed into the GFCM Vessel Records (resolution GFCM/35/2011/1) so that the GFCM FMC can rely on up-to-date data. The GFCM and its Members are encouraged to take this opportunity to upgrade their national and regional registers so as to be in line with international initiatives to fight Illegal, Unreported and Unregulated (IUU) fishing (which is one of the main reasons for a VMS system to be in place).**

- **6. In order to assure consistent data gathering and sharing over the entire GFCM Area of competence, the GFCM Secretariat will establish a central VMS that will serve a multi-faceted role. A key function will be to serve as a central repository and source for all GFCM vessel data. In addition, this regional FMC could provide data services to GFCM Members that do not yet have the advantage of their own FMC. In this case, vessels registered in those countries, and carrying compatible equipment, would report directly to the GFCM FMC. The GFCM, in turn, would provide the fisheries authorities of those States with real-time access to the data.**

In a geographical context as diverse as the GFCM's area of competence, a centralized resource for data- sharing and –gathering is essential. For this reason the GFCM will need to complete an implementation exercise to assure that the centralized system corresponds to the needs of the organization and the Member States taken globally. That exercise will consist of the following steps:

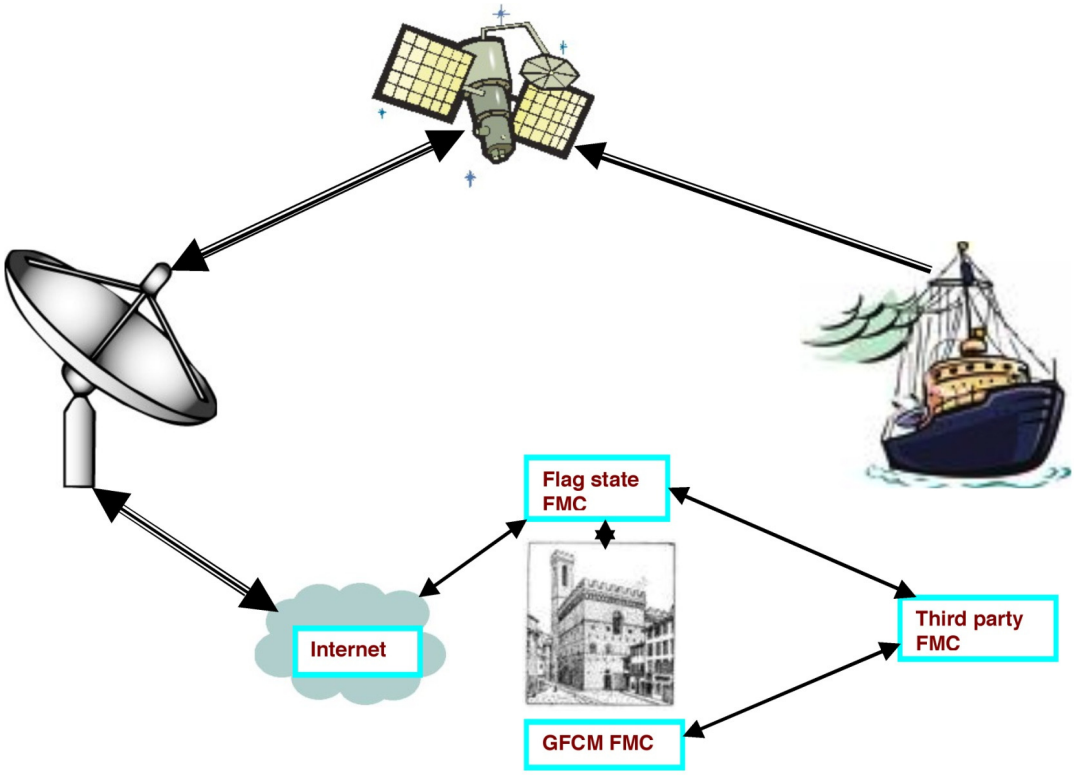
- analyze the role of the VMS in the context of operations by neighbouring and cooperating organizations
- based upon this analysis, develop a "functional specification" for the VMS, i.e. a text description of day-to-day operations (this will clarify administrative and staffing needs).
- Use that functional specification as the basis for a tender document; lance tender and choose supplier.
- Proceed to implementation. Assuming that previous points on norms and standards have been carried out, implementation will be a relatively transparent operation. The only remaining sensitive point will be the required level of security.



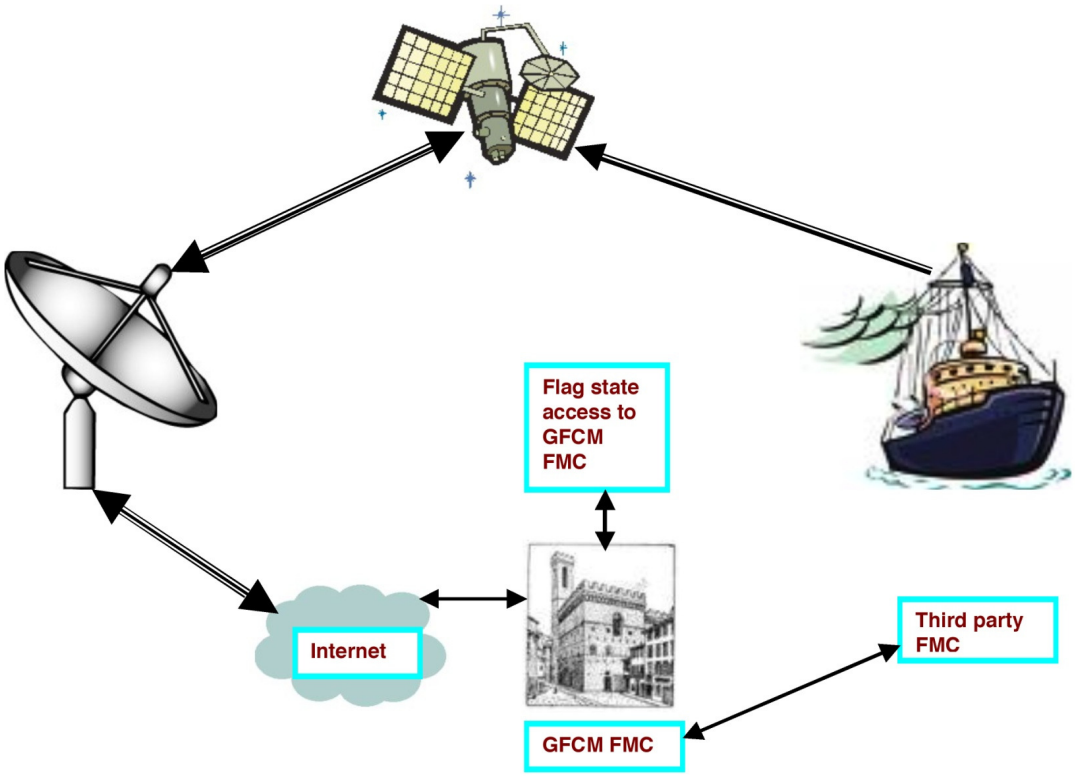
Schematic view: GFCM system

- **7. The reporting procedure for the GFCM Area of competence will require that all VMS positions be reported, in the first instance, to the FMC of its flag State authority. Should any received position fall outside territorial waters or waters under national jurisdiction of the reporting vessel's flag State, such position will be relayed immediately to the FMC of the GFCM Secretariat. GFCM Secretariat will be responsible for forwarding the data to any third party authorized to receive it.**

As is international convention, Flag State priority will be recognized for vessel reporting, with GFCM and interested third states receiving data only seconds later.



Schematic of GFCM Area reporting protocol with National VMS (above) and (see point 6) without National VMS (below).



- **8. Members will determine the most suitable approach for monitoring their small-scale and artisanal fisheries. This exercise will take into account variables such as required data sets and desired reporting frequency. In addition it will address the question of required vessel reporting equipment based upon criteria such as power supply, geographical coverage, required initial investment and operating costs. Issues such as the use of terrestrial communications systems, like VHF radio, wireless networks, cellular telephony and data transfer in port, will be given attention in due time.**

The prevalence of artisanal fisheries in the GFCM Area (30% to 40% of total catch) would indicate that monitoring the activity of vessels that exploit those fisheries of fundamental importance. Nonetheless, such an activity poses problems of technology and infrastructure that do not arise with larger, professional vessels. These include questions of power supply, size and emplacement of equipment and, given the large numbers of artisanal vessels, issues such as original investment, cost of maintenance and cost of reporting. Furthermore, artisanal fisheries tend to have important particularities, and this means that each fishery must be analyzed for the optimal technical and economic solution. Amongst the questions that should be examined by Member States in devising solutions for their artisanal fisheries are:

- do the vessels benefit from adequate power supplies for the desired reporting? In the case of a negative response, the shipboard equipment would require its independent power supply using either rechargeable batteries or solar power.
- What are the coverage areas in the fisheries of terrestrial systems, such as cellular telephony and VHF radio and wireless networks? Such an approach could avoid relatively high costs for satellite communications equipment.
- At what interval must data be delivered to the FMC? If the requirement is infrequent (as it may well be for artisanal vessels) operation costs can be reduced by infrequent reporting or reporting by terrestrial means upon arrival in port.
- What services can be included to the benefit of the fishermen?

Finding a way to include distress and safety services improves the integrity of the effort.

- **9. Members will make VMS data available to their own monitoring, control and surveillance (MCS) assets as well as, where appropriate, to the MCS assets of other GFCM Members as a way of detecting IUU in the GFCM Area of competence.**

- **10. GFCM will establish a commission-wide vessel database for its Area of competence including a file for each of the vessels licensed to fish and a report on each confirmed or suspected incident of IUU fishing. This will be done in accordance with the provisions of recommendation GFCM/33/2009/8 and recommendation GFCM/2008/1.**

This database will form part of the installation of the GFCM FMC and will be object of the same procurement exercise.

- **11. In the case where a GFCM Member, in the course of the exercise of its normal VMS and MCS activities, detects what appears to be IUU fishing activity by a vessel operating under a flag other than its own, it will inform the flag State concerned and the GFCM Secretariat of its findings.**

- **12. The data collected by the GFCM will be included in a single database: vessel records (paragraph 5), VMS data (paragraph 6), IUU incidents (paragraph 10). Direct and unrestricted access to the database will be authorized for designated officers of each of the Members according to the GFCM data confidentiality policy and procedures.**

- **13. The application of VMS and related technologies in the GFCM will evolve as a function of the evolution of the state of the art.**

The functionality of VMS is in constant evolution with new services being added as the technology evolves. The electronic vessel logbook, and the use of satellite imagery, for vessel detection systems (VDS) are such technologies. It is essential that the Member States and the GFCM secretariat integrate these new technologies as they become available.