

United Nations Environment Programme

UNEP(DEPI)/MED WG. 338/2 4 May 2009

ENGLISH



IMO/MED POL Regional Workshop for the Promotion of the

London and Barcelona Dumping Protocols

Rome (Italy), 20-22 May 2009

AMMUNITIONS DUMPING SITES INTO THE MEDITERRANEAN SEA

In 2006, MED POL generated a first draft report and map on dumping of ammunitions in the Mediterranean. MED POL Focal Points in their meeting in Hammamet 2007 requested the updating of the map and the reports on the basis of additional data and information which would be provided by the FPs.

The present report and map constitues the updated versions as for November 2008.

Introduction

Useless and obsolete ammunitions, explosives and war material of any sort have been dumped in oceans and seas for decades. Among the military ordnance dumped at sea, chemical weapons (CWs) and riot control agents represent a significant percentage, in the Mediterranean Sea too. The yearly rate of dumping of this material is slowly diminuishing, also because the entry into force of international conventions stimulating the adoption of other disposal practices. Howhewer, the actual amount of dumped war material, subject to the corrosive action of sea water which causes the release of chemical products, has to be considered as a not negligible source of persistent pollutants.

Taking into consideration abundance and extension of the dumping sites, the wide dispersion of the dumped war material due to trawling fishery, their increasingly rusted conditions and a number of other factors, there is a need for data and information suitable to provide a sound scientific base to carefully evaluate costs and benefits deriving from possible clean up activities at sea.

In order to assess the relevance of this delayed in time source of pollutants, as well as the suitability of remediation actions, the Contracting Parties to the Barcelona Convention in their 13th meeting, held in November 2005 at Portoroz (SL), requested to the Coordination Unit of the Mediterranean Action Plan to undertake an assessment of the unexploded ammunitions and obsolete ordnance dumped in the Mediterranean Sea.

As part of a broader overview of the issue of military ordnance dumping activities carried out in the Mediterranean Sea, this assessment has been carried out initially proposing to representatives of Contracting Parties a questionnaire in order to gather information on available data and on existing mechanisms for recording encounters with dumped ammunitions. The second step has been an overview of nautical charts and pilot books where usually the main dumping sites and fire practicing areas are indicated.

As a result of the research carried out during year 2007, a report and a geo-referenced map of the dumping sites of ammunitions in the Mediterranean, both already recorded and not previously reported, were produced. The report and map were checked and commented by the participating contracting parties and the MEDU Secretariat tasked the consultant to review the produced material accordingly. A second round of interviews by means of a questionnaire was accomplished providing also new entries of the proposed database. The information gathered has been included in the present updated report containing the revised table of locations and a new revised map.

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The Dumping Protocols of the Barcelona Convention

The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, adopted in Barcelona, Spain, on February the 16th 1976, in article 1 states its objective as "to prevent and abate pollution of the Mediterranean Sea area caused by dumping from ships and aircraft". To this end, a list of materials and substances was indicated the dumping of which in the Mediterranean is forbidden. For another list of materials and substances, dumping in the Mediterranean was subject to the issuing of a special permit by the National authority. Article 7 of the Protocol requires Parties¹ to send a record of permits to the Coordination Unit of the Mediterranean Action Plan on a yearly basis.

The Protocol was significantly amended in Barcelona in 1995, at the same time as the Barcelona Convention. The new Protocol is called <u>Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea</u>. The approach of the amended protocol changes the focus of the regulation from a black list of material for which dumping is forbidden to a general prohibition of dumping in the Mediterranean except for a short list of matters, thereby following the same approach as the Protocol of 1996 to the London Dumping Convention.

Substances that may be dumped at sea, set out in article 4, are as follows:

- dredged materials;
- fish waste or matter produced during processing of fish and other marine organisms;
- platforms or other artificial structures in the sea, having ensured that floating matter and other materials which could cause significant marine pollution are removed, as much as possible;
- inert geological material whose chemical constituents are not released significantly into the marine environment.

For the "permitted" waste, dumping is allowed only after having obtained a special permit. The special permit should be given after having taken into consideration the specific biological and natural condition of the dumping area. Article 7 of the original protocol has been omitted but article 14.2, stating that the meeting of the Parties shall study the records of the permits, has been maintained. The Parties shall, therefore, have to communicate to the Coordination Unit of the Mediterranean Action Plan their records if the matter is to be discussed at the meetings of the Parties². The amended protocol has not yet entered into force but obsolete and useless ammunitions and war materials are not eligible for dumping, both according to the already in force Protocol and in the amended one.

¹ All Mediterranean states and the European Community are Parties to the Protocol.

² The reporting obligations of the European Community and its Member States under the Barcelona system, including the Dumping protocol, has been extensively described by a study requested by the EC Environmental Directorate-General to the European Environmental Agency, published in 2001 as Technical report n. 45, "Guidelines of the EC reporting obligations under the Barcelona Convention and its Protocols in force", EEA, 2001.

So far, 13 Mediterranean Countries, namely Albania, Croatia, Cyprus, Egypt, France, Italy, Malta, Monaco, Morocco, Slovenia, Spain, Tunisia, Turkey and the European Community have ratified or accepted the amendments.

European Community initiative

The European Community has set up a Community framework for cooperation in the field of accidental or deliberate marine pollution (Decision No. 2850/2000/EC)³. The decision states that accidental marine pollution risks include 'those linked to the presence of dumped materials, such as munitions' (Article 1, §1.2a). Furthermore, the framework states that 'In accordance with the internal division of competences within Member States, they shall exchange information on dumped munitions with a view to facilitating risk identification and preparedness measures' (Article 1, §1.2b).

The Decision lists the types of actions under the framework for cooperation and under the 'Support and Information Actions' is included the text: 'Measures to encourage the exchange of information between the competent authorities on the risks linked to dumped munitions, on the areas concerned (including mapping) and on measures to be taken in response to an emergency' (Annex II, §C3).

Whilst there is no legal obligation on EC Member States nor to non-EC Mediterranean States to provide information on the areas concerned, the provision of a Mediterranean framework for reporting encounters with dumped chemical weapons and ammunitions would assist the States party cooperating to protect environment and human health from accidental and deliberate pollution from harmful substances including dumped ammunitions.

Adriatic-Ionian initiative

In April 2001, at the meeting of the Ministers of the Environment of the Adriatic and Ionian Sea held in Ancon, Italy, the Ministers acknowledged that the problems, which arise from the ordnance dumped in an ecologically sensitive heavy populated sea basin, are a major concern of all the coastal States. The Ministers welcomed the establishment of a scientific and technical sub-Regional forum to discuss the issue at international level. The Ministers further indicated their willingness to face the financial, scientific and technological challenges arising from the presence of such dumped ammunitions.

Need for Updating of information

Nautical charts and pilot books provide details about many dumping sites and fire practicing areas in the Mediterranean Sea but many sites remains uncharted and, for the most part, few data are made available on quantities and types of ordnance dumped on the Mediterranean seabed. This is partly due to the practice of "short dumping", whereby munitions were dumped outside of designated dumpsites and to a number of other reasons. Among these, changes in site conditions at ammunitions dumpsites have to be taken into account. Such changes can be brought about by natural processes or through

³ Decision No. 2850/2000/EC of the European Parliament and of the Council of 20 December 2000 setting up a Community framework for cooperation in the field of accidental or deliberate marine pollution. Official Journal L 332, 28/12/2000 P. 0001 – 0006.

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human activities in the vicinity of dumpsites. For example, the hydrodynamic regime in the area may result in exposure of previously buried devices. If disturbed, positively buoyant devices, such as phosphorus canisters, may float to the surface and represent a real risk to the seafarers and to the general public should they be washed ashore. Without adequate records being maintained on encounters with dumped munitions and chemical weapons it is not possible to monitor the risk posed by such ammunitions and weapons to either humans or the marine environment.

Furthermore, it has to be noted that the reporting of dumping of obsolete ordnance is not mandatory under the London Convention nor it is specifically considered in the Dumping Protocol of the Barcelona Convention. Consideration has to be given also to the fact that because "State owned ships and aircrafts" are exempted from the provisions of these international conventions and Protocols, the dumping of ammunitions may be unknown by the authorities in charge with the reporting since the dumping of ordnance is usually carried out by national military forces. The exchange of information between the military and civilian administrations, whether environmental or transport authorities, is not often either regular or normally envisioned, therefore no information can be easily gathered regarding the dumping of military ordnance in the Mediterranean Sea. Although it has to be acknowledged that it would be difficult to arrive at a comprehensive picture, gathering the available data and recording of accidental encounters, particularly where clusters occur, may lead to the identification of previously unknown or unrecorded areas. Encounters with ammunitions in areas not previously closed to fishing/anchorage or classified as 'high risk' may, possibly following confirmatory survey work, allow for the boundaries of such areas to be extended. Once again such actions cannot be undertaken unless adequate information is recorded and reported.

Activities carried out to gather information

With the aim to gather information on available data on localisation and extension of ordnance dumping areas in Mediterranean Sea and to provide an account on existing mechanisms for recording encounters with dumped ammunitions, a second version of a questionnaire (**Annex I**) was realised and sent to representatives of Contracting Parties and further researches have been accomplished consulting literature, nautical charts and sailor notices.

Among the national focal points, seven State Parties provided updated information answering to the questionnaire: Bosnia and Herzegovina, Croatia, Italy, Malta, Monaco, Spain and Tunisia. The Parties informed about the ammunition dumping sites located in their waters and, in some cases, about the national intervention plan to be put in place whenever unexploded ordnance are found at sea. Only in the cases of Spain and Tunisia, the National Regulatory System is reported consisting in the ban of the ammunition sea dumping through national laws.

The consultation of pertinent literature, nautical charts and sailor notices⁴ allowed to point out several dumping areas marked as "explosives dumping ground" or "unexploded ordnance area". As well, the so-called "firing practice and exercise area" have been taken into account.

⁴ Produced by the British Admiralty and the Italian *Istituto Idrografico della Marina Militare*.

The main ammunition dumping areas found in the Mediterranean Sea are listed in **Annex II** and mapped in **Annex III**.

Main unexploded ordnance dumping sites in the Mediterranean Sea

The consultation of literature, nautical charts and sailor notices allowed us to identify 67 ammunitions dumping areas and 71 firing practice and exercise areas. Sailor notices allowed us to add several areas not marked on nautical charts. In fact, as confirmed by the Italian *Istituto Idrografico*, the indication of dumping areas on nautical charts is usually deleted after some decades; thus, it is only possible to trace the areas using sailor notices. In this way, dumping areas were identified, for example, in the Ligurian Sea, around Sardinia and offshore Venice, where a ship loaded with war surplus materials was scuttled.

The geographical coordinates of the detected dumping areas are reported in **Annex II** whereas their distribution and extension are mapped in **Annex III**.

The methodology applied to identify the main reported ammunitions dumping sites in the Mediterranean Sea seems to have been fruitful. Nevertheless, the identified areas do not represent the real number of dumping sites of ammunitions and war surplus. In fact, the more detailed study carried out on the waters surrounding the Italian coasts, also consulting both English and Italian charts and sailor notices, shows as further details on number and distribution of sea dumping areas and concerning the typology of ordnance dumped at sea might be obtained through interviews with local fisheries stakeholders, the consultation of national military and civilian archives and the study of nautical documents produced by different national dedicated institutions.

All these sources have been utilised, for instance, during the R.E.D. C.O.D. (Research on Environmental Damage caused by Chemical Ordnance Dumped at sea) project cofinanced by the European Commission, DG Environment, to ICRAM (*Istituto Centrale per la Ricerca scientifica e tecnologica Applicata al Mare*), CoNISMa (*Consorzio Nazionale Interuniversitario per le Scienze del Mare*), CETLI (*Centro Tecnico Logistico Interforze NBC*) and IBIM-CNR (*Istituto di Biomedicina e di Immunologia Molecolare "Alberto Monroy" of Consiglio Nazionale delle Ricerche*).

Interviews with fishermen have represented a very important source of information considering that for six decades fishermen have been victims of numerous incidents due to the accidental recovery of conventional and chemical weapons in their trawling nets. The several interviews carried out in the Apulia fisheries highlighted both the greater than known extension of the dumping areas in the Southern Adriatic Sea and the existence of other dumping sites not officially recorded. Both military and civilian archives have represented other important sources of information and in particular the Italian *Guardia Costiera* archives. In **Annex IV** an **Annex V** the dumping areas in the Southern Adriatic Sea noticed and partly studied during the RED COD project are reported. The comparison between the maps produced with the present research highlights the great number of not charted or already recorded areas in the Southern Adriatic Sea that has been possible to locate through interviews with fishermen and consultation of archives.

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Recommendations and main advisable actions to be taken

Hereinafter the main recommendations and advisable actions to be taken in the future are reported. These considerations are grown up, above all, following the analysis of questionnaire results.

In synthesis, the Coordinating Unit for the Mediterranean Action Plan of United Nations Environment Programme (UNEP/MAP) should:

- a. in the State Parties where this practise is still possible, to stimulate a reduction of ammunition sea dumping, emphasising the alternatives (recycling, reuse, etc.);
- b. encourage fishermen and other concerned stakeholders to denounce the encounter with ammunition dumped at sea, usually to the national Coast Guard;
- c. develop a common reporting system to UNEP/MAP of all Unexploded Ordnance found at sea;
- d. support the developing of monitoring plan of the main ammunition dumping areas in the Mediterranean sea to better understand the ecological and economical consequences, as well as the opportunity to take actions leading eventually to the minimisation of risks;
- e. promote in all State Parties a strict cooperation between military authorities and civilian administrations in particular in monitoring, reporting activities and minimisation of risks;
- f. reduce the human risk linked to the accidental recovery by fishermen of old and rusted weapons, promoting the best practices to be taken in place.

Annex I

Revised questionnaire

SECTION I GENERAL AND LEGAL ASPECTS

Please, check applicable boxes and comment as necessary. Attach additional sheets if needed

State Party	1.
Date	
Person the Coordination Unit of the MAP may contact to discuss this questionnaire	Name: Position: Telephone: Fax: Email:
National Regulatory System	 1. Under your State's legal system, are there in place regulations dealing with the dumping at sea of unexploded ammunitions? Yes No If yes, please specify the regulation and the authority to which to apply and to which would be responsible to report:

SECTION I

GENERAL AND LEGAL ASPECTS

Please, check applicable boxes and comment as necessary. Attach additional sheets if needed

Permit requirements	 If a regulatory system exists, does it requires, prior to the issue of the permit: 						
	Identification of types and quantity of the ammunitions to be dumped						
	Proposed location of the dumping site and its characterisation						
	Date in which the activity is to take place and its duration						
	Specification of methodologies and modalities for the dumping activity						
	Evaluations of the ecological, economical and environmental impact of dumping in the proposed area						
	Monitoring plan						
	Other information:						
	3. If a regulatory system exists, does it require exhaustive reports in support of the above information?						
	Yes						
	No						
	4. Are there technical/scientific bodies supporting your Administration in dealing specifically with this dumping-related issues?						
	Yes						

SECTION II PRACTICAL ASPECTS

Please, check applicable boxes and comment as necessary. Attach additional shee	ts if
needed	

Ammunitions Dumping Sites	 5. Are the locations of dumped ammunitions in your territorial waters indicated in maritime charts? Yes No If yes, please provide the available data (i.e. geographical coordinates, quantity and types of ammunitions, etc.): 							
	6. Are there uncharted locations of dumped ammunitions in your territorial waters?							
	Yes							
	No No							
	If yes, please provide the available data (i.e. geographical coordinates, quantity and types of ammunitions, etc.):							
	 7. Are there records of activities carried out to dump ammunitions outside your territorial waters? Yes No 							
	If yes, please provide the available data (i.e. geographical coordinates, quantity and types of ammunitions, etc.):							

SECTION II PRACTICAL ASPECTS

Please, check applicable boxes and comment as necessary. Attach additional sheets if needed

Reporting, recording and assessment of encounters with marine dumped unexploded ammunitions	 8. Is there currently a system in place whereby fishermen and other users of the sea and its coastline may/must report encounters with ammunitions dumped at sea? Yes No If yes, please specify the regulation and the authority to which to report: 9. In case a reporting procedure is in place, through what means is it communicated to fishermen and other members of the public (e.g. fishermen's organisations, trade papers, etc.)? 						
	 10. Once an encounter has been reported is there a formal procedure for the recording and assessment of such incidents? Yes No 						
	11. If yes, what national authority is responsible for recording and assessing encounters with marine dumped ammunitions?						
	12. Outline the reporting and assessment procedure/system: information recorded (e.g. location, description of item, nature of encounter entanglement in nets, stranding - etc.), follow-up procedures (e.g. site visit if the incident relates to a beached object), action taken (e.g. destroyed, released). If possible, please provide an example of a logged encounter:						
	13. Please provide a summary, if available, of all incidents recorded over the last 10 years – include information on number, type and location of the incidents:						
	 14. Is there currently a monitoring/surveillance programme in place for ammunition dumpsites? Yes No 						

SECTION II

PRACTICAL ASPECTS

Please, check applicable boxes and comment as necessary. Attach additional sheets if needed

Reporting, recording and assessment of encounters with marine dumped unexploded ammunitions	15. If yes, please name the authority responsible for monitoring/surveillance:
Permits issued	 17. In the period 1995-2006, how many dumping permits has your Government issued in relation to: War surplus and ordnance:
Permits issued spec.	For each of the above and for each permit issued, please specify: 18. Description of the area in which the dumping took place: • Geographical position (Latitude and longitude of relevant points, width of the area, etc.): • Depth of water (m): • Distance from nearest land (Nautical Miles): • Relevant hydrographical, biological and meteorological characteristics of the site, including the sea bottom:

Annex II

Ammunitions dumping areas in the Mediterranean Sea

Note: the choice of basin names in the Mediterranean Sea indicated in the column "Location" has been made on the basis of indications specified in the document:

International Hydrographic Organization, 1953. Limits of Oceans and Seas (Special Publication n° 28). 42 pp.

http://www.iho.shom.fr/PUBLICATIONS/download.htm

		Vertex or			page i
Locatio	on Source	radius (nm) of areas	Coordinates	Depth (m)	Notes
Adriatic	Sea British Admiralty Charl	ts 5	φ 44°30,00' N; λ 013°30,00' E	40	Circular area marked on nautical charts as "explosives dumping ground"
Adriatic	Sea British Admiralty Chart	ts 3.8	φ 43°25,60' N; λ 014°21,80' E	50	Circular area marked on nautical charts as "explosives dumping ground"
		Α	φ 44°20,00' N, λ 013°20,00' E		
Advictio	Coo Dritich Admiralty Chord	В	φ 44°23,70' N; λ 013°28,00' E	60	Polygonal area marked on nautical charts as "explosives dumping
Adriatic	Sea British Admiralty Charl	C	φ 44°09,00' N; λ 013°48,00' E	60	ground"
		D	φ 44°05,00' N; λ 013°40,00' E		
Adriatic	Sea British Admiralty Chart	ts 5	φ 43°58,30' N; λ 014°15,60' E	70	Circular area marked on nautical charts as "explosives dumping ground"
		А	φ 43°14,20' N; λ 014°44,20' E		
Adriatic	Sea British Admiralty Charl	ts B	φ 42°57,00' N; λ 014°53,00' E	120	Polygonal area marked on nautical charts as "explosives dumping ground "
		С	φ 42°57,00' N; $λ$ 014°26,50' E		9.02.02
Adriatic	Sea British Admiralty Charl	ts 3	φ 42°07,60' N; λ 017°00,00' E	50	Circular area marked on nautical charts as "explosives"
Adriatic	Sea British Admiralty Chart	ts 2	φ 42°35,00' N; λ 017°36,00' E	40	Circular area marked on nautical charts as "explosives dumping ground"
Adriatic	Sea British Admiralty Charl	ts 2	φ 41°15,00' N; λ 016°39,00' E	100	Circular area marked on nautical charts as "explosives"

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
Alboran Sea	British Admiralty Charts	2	φ 37°27,10' N; λ 001°00,00' W	1250	Circular area marked on nautical charts as "explosives dumping ground"
Alboran Sea	British Admiralty Charts	1	φ 36°04,50' N; λ 005°18,50' W	800	Circular area marked on nautical charts as "explosives dumping ground"
Alboran Sea	British Advice to Mariners Area LE-D22	B C	$\begin{array}{c} \phi \ 37^{\circ}13,00' \ N; \ \lambda \ 001^{\circ}15,00' \ W \\ \phi \ 37^{\circ}13,00' \ N; \ \lambda \ 000^{\circ}45,00' \ W \\ \phi \ 36^{\circ}56,00' \ N; \ \lambda \ 000^{\circ}45,00' \ W \\ \phi \ 36^{\circ}56,00' \ N; \ \lambda \ 001^{\circ}15,00' \ W \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners Area LE-D103	B C	$\begin{array}{c} \phi \ 39^{\circ}13,00' \ N; \ \lambda \ 003^{\circ}05,00' \ E \\ \phi \ 39^{\circ}13,00' \ N; \ \lambda \ 002^{\circ}52,00' \ E \\ \phi \ 39^{\circ}07,00' \ N; \ \lambda \ 002^{\circ}52,00' \ E \\ \phi \ 39^{\circ}07,00' \ N; \ \lambda \ 003^{\circ}05,00' \ E \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners Area M 135	B C	$\begin{array}{c} \phi \ 39^\circ 54,80' \ \text{N}; \ \lambda \ 000^\circ 04,30' \ \text{E} \\ \phi \ 39^\circ 54,80' \ \text{N}; \ \lambda \ 000^\circ 40,80' \ \text{E} \\ \phi \ 39^\circ 53,00' \ \text{N}; \ \lambda \ 000^\circ 40,80' \ \text{E} \\ \phi \ 39^\circ 53,00' \ \text{N}; \ \lambda \ 000^\circ 04,30' \ \text{E} \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners Area M 134	2	φ 37°27,00' N; λ 001°00,00' W	n.d	Circular area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners Area LE-D58	B C	$\begin{array}{c} \phi \; 35^\circ 51,00' \; N; \; \lambda \; 005^\circ 00,00' \; W \\ \phi \; 35^\circ 51,00' \; N; \; \lambda \; 004^\circ 42,00' \; W \\ \phi \; 35^\circ 45,00' \; N; \; \lambda \; 004^\circ 42,00' \; W \\ \phi \; 35^\circ 45,00' \; N; \; \lambda \; 005^\circ 00,00' \; W \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
Alboran Sea	British Advice to Mariners Area LE-D95	A B C D E	$\begin{array}{c} \phi \; 38^\circ 35,00' \; N; \; \lambda \; 001^\circ 07,00' \; E \\ \phi \; 38^\circ 25,00' \; N; \; \lambda \; 001^\circ 27,00' \; E \\ \phi \; 37^\circ 40,00' \; N; \; \lambda \; 000^\circ 52,00' \; E \\ \phi \; 37^\circ 57,00' \; N; \; \lambda \; 000^\circ 18,00' \; E \\ \phi \; 38^\circ 25,00' \; N; \; \lambda \; 000^\circ 33,00' \; E \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners	A B C	φ 35°47,80' N; λ 001°42,50' W φ 35°39,80' N; λ 001°39,10' W φ 35°44,30' N; λ 001°41,60' W	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Alboran Sea	British Advice to Mariners	A B C	$\begin{array}{c} \phi \; 35^{\circ}22,00' \; N; \; \lambda \; 004^{\circ}04,04' \; W \\ \phi \; 35^{\circ}15,00' \; N; \; \lambda \; 004^{\circ}28,80' \; W \\ \phi \; 35^{\circ}35,40' \; N; \; \lambda \; 004^{\circ}04,00' \; W \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Central Adriatic Sea	Italian advice to mariners	A B C D	φ 41°09,00' N; λ 016°49,50' E φ 41°09,00' N; λ 016°50,00' E φ 41°07,00' N; λ 016°51,50' E φ 41°07,00' N; λ 016°51,00' E	45	Polygonal area marked on nautical charts as "explosives dumping ground"
Central Adriatic Sea	Italian nautical chart n° 6011/1990 and Royal Navy	2	φ 42°08,00' N; λ 018°31,50' E	50	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Central Adriatic Sea	Italian nautical chart n° 6012/1997 and Royal Navy	3	φ 42°08,30' N; λ 018°31,40' E	40	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Central Adriatic Sea	Italian nautical chart n° 921/2001 and Royal Navy	3	φ 42°00,00' N; λ 017°00,00' E	60	Circular area marked on nautical charts as "unexploded ordnance dumping area"

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes	
Central Adriatic Sea	Italian nautical chart n° 922/2005 and Royal Navy	2.5	φ 43°08,33' N; λ 015°26,00' E	50	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
Central Adriatic Sea	Italian nautical chart n° 923/2004 and Royal Navy	1	φ 43°58,85' N; λ 014°46,61' E	50	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
		Α	φ 42°13,67' N; λ 015°44,51' E			
Central Adriatic	ICRAM	В	φ 42°13,67' N; λ 015°45,20' E	50	Polygonal area marked on nautical charts as "unexploded	
Sea	ICRAM	С	φ 42°13,27' N; λ 015°45,20' E	50	ordnance dumping area"	
		D	φ 42°13,27' N; λ 015°44,51' E			
	Italian nautical chart n°1050 Zone E344	Α	φ 43°57,60' N; λ 012°45,60' E		d [.] Polygonal area marked on nautical charts as "firing practice and exercise area"	
Central Adriatic		В	φ 43°58,74' N; λ 012°49,98' E	n.d.		
Sea		С	φ 43°58,74' N; λ 012°54,60' E			
		D	φ 43°55,56' N; λ 012°35,58' E			
East Central Tyrrhenian Sea	Mediterranean Pilot Book Vol. 1B and Royal Navy	0.12	φ 40°45,28' N; λ 014°05,83' E	n.d	Circular area marked on nautical charts as "shipwreck loaded with war surplus"	
		Α	φ 40°48,36' N; λ 014°02,22' E			
East-Central	Italian nautical chart	В	φ 40°48,36' N; λ 013°48,36' E		Polygonal area marked on nautical charts as "firing practice and exercise area"	
Tyrrhenian Sea	n°1050 Zone E335	С	φ 40°59,40' N; λ 013°48,36' E	n.d		
		D	φ 40°59,40' N; λ 013°58,38' E			
		Α	φ 40°49,50' N; λ 013°42,48' E		Polygonal area marked on nautical charts as "firing practice and	
East-Central	Italian nautical chart	В	φ 40°45,96' N; λ 013°51,00' E			
Tyrrhenian Sea	n°1050 Zone M531	С	φ 40°43,38' N; λ 013°50,52' E	n.d	" exercise area"	
			D	φ 40°44,04' N; λ 013°40,56' E		

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
East-Central Tyrrhenian Sea	Italian nautical chart n°1050 Zone E332	A B C D	$\begin{array}{c} \phi \; 41^\circ 27,36' \; N; \; \lambda \; 012^\circ 41,28' \; E \\ \phi \; 41^\circ 22,14' \; N; \; \lambda \; 012^\circ 57,36' \; E \\ \phi \; 41^\circ 16,08' \; N; \; \lambda \; 012^\circ 55,56' \; E \\ \phi \; 41^\circ 22,08' \; N; \; \lambda \; 012^\circ 14,64' \; E \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
East-Central Tyrrhenian Sea	Italian nautical chart n°1050 Zone E333	A B C D E F	$\begin{array}{c} \varphi \; 41^{\circ}22,26' \; N; \; \lambda \; 012^{\circ}57,40' \; E \\ \varphi \; 41^{\circ}13,02' \; N; \; \lambda \; 012^{\circ}56,94' \; E \\ \varphi \; 41^{\circ}08,94' \; N: \; \lambda \; 012^{\circ}50,64' \; E \\ \varphi \; 41^{\circ}13,02' \; N; \; \lambda \; 012^{\circ}41,94' \; E \\ \varphi \; 41^{\circ}24,78' \; N; \; \lambda \; 012^{\circ}35,70' \; E \\ \varphi \; 41^{\circ}27,42' \; N; \; \lambda \; 012^{\circ}39,30' \; E \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
East-Central Tyrrhenian Sea	Italian nautical chart n°1050 Zone E334/T831	A B C D E	$\begin{array}{c} \varphi \; 41^{\circ}20,88' \; N; \; \lambda \; 012^{\circ}55,98' \; E \\ \varphi \; 41^{\circ}20,16' \; N; \; \lambda \; 012^{\circ}59,16' \; E \\ \varphi \; 41^{\circ}18,42' \; N; \; \lambda \; 013^{\circ}00,48' \; E \\ \varphi \; 41^{\circ}16,50' \; N; \; \lambda \; 013^{\circ}00,00' \; E \\ \varphi \; 41^{\circ}16,08' \; N; \; \lambda \; 012^{\circ}55,56' \; E \end{array}$	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Eastern Mediterranean	British Admiralty Charts	0.5	φ 32°08,40' N; λ 034°45,50' E	30	Circular area marked on nautical charts as "explosives dumping ground"
Eastern Mediterranean	British Admiralty Charts	A B C D	$ \begin{array}{c} \phi \; 34^\circ 24,80' \; N; \; \lambda \; 034^\circ 06,50' \; E \\ \phi \; 34^\circ 24,80' \; N; \; \lambda \; 034^\circ 10,00' \; E \\ \phi \; 34^\circ 22,00' \; N; \; \lambda \; 034^\circ 10,00' \; E \\ \phi \; 34^\circ 22,00' \; N; \; \lambda \; 034^\circ 06,50' \; E \\ \end{array} $	2000	Polygonal area marked on nautical charts as "explosives dumping ground"
Eastern Mediterranean	British Admiralty Charts	A B C D	$\begin{array}{c} \phi \; 36^{\circ}47,60' \; \text{N}; \; \lambda \; 030^{\circ}35,50' \; \text{E} \\ \phi \; 36^{\circ}47,60' \; \text{N}; \; \lambda \; 030^{\circ}36,80' \; \text{E} \\ \phi \; 36^{\circ}46,80' \; \text{N}; \; \lambda \; 030^{\circ}36,80' \; \text{E} \\ \phi \; 36^{\circ}46,80' \; \text{N}; \; \lambda \; 030^{\circ}35,50' \; \text{E} \end{array}$	50	Polygonal area marked on nautical charts as "explosives"

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
East-Southern Tyrrhenian Sea	Italian advice to mariners	1	φ 39°48,90' N; λ 015°47,00' E	45	Circular area marked on nautical charts as "explosives dumping ground"
		A	φ 43°39,00' N; λ 009°12,10' E		
Ligurian Sea	British Admiralty Charts	В	φ 43°39,00' N; λ 009°20,00' E	1300	Polygonal area marked on nautical charts as "explosives dumping
Liguriari Sea	Diffish Authinalty Charts	С	φ 43°31,00' N; λ 009°03,00' E	1300	ground"
		D	φ 43°29,00' N; λ 009°08,00' E		
Ligurian Sea	British Admiralty Charts	0.5	φ 43°34,40' N; λ 007°09,20' E	20	Circular area marked on nautical charts as "explosives dumping ground"
Ligurian Sea	Italian advice to mariners	0.5	φ 43°07,30' N; λ 10°30,70' E	45	Circular area marked on nautical charts as "Shipwreck probably loaded with conventional weapons"
Ligurian Sea	Italian advice to mariners	0.5	φ 43°07,40' N; λ 010°30,06' E	45	Circular area marked on nautical charts as "Shipwreck probably loaded with conventional weapons"
Ligurian Sea	Italian advice to mariners	0.5	φ 43°09,00' N; λ 010°29,10' E	45	Circular area marked on nautical charts as "Shipwreck probably loaded with conventional weapons"
Ligurian Sea	Mediterranean Pilot Book Vol. 1C 1982	1	φ 44°02,57' N; λ 009°41,81' E	n.d	Circular area marked on nautical charts as "unexploded ordnance dumping area"

Location	Source	Vertex and radius (nm) of areas) Coordinates	Depth (m)	Notes
Ligurian Sea	Mediterranean Pilot Book Vol. 1C 1982	0.8	φ 44°00,00' N; λ 009°42,13' E	n.d	Circular area marked on nautical charts as "unexploded ordnance dumping area"
		Α	φ 44°03,00' N; λ 009°13,98' E		
		В	φ 43°54,00' N; λ 010°07,20' E		Debugged are marked as positivel about as "lifeting provides and
Ligurian Sea	Italian nautical chart n°1050 Zone T803	С	φ 43°51,00' N; λ 010°00,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
	11 1030 2016 1003	D	φ 44°00,00' N; λ 009°41,82' E		
		E	φ 44°03,24' N; λ 009°42,00' E		
		A	φ 43°44,34' N; λ 009°21,48' E		
Ligurian Sea	Italian nautical chart	В	φ 44°00,54' N; λ 009°31,50' E	. n.c	Polygonal area marked on nautical charts as "firing practice and exercise area"
Ligunari Sea	n°1050 Zone T801	С	φ 44°00,54' N; λ 009°50,28' E	. n.u	
		D	φ 43°43,98' N; λ 009°55,98' E		
		А	φ 43°58,98' N; λ 009°51,78' E	_	Polygonal area marked on nautical charts as "firing practice and exercise area"
Ligurian Sea	Italian nautical chart	В	φ 43°54,06' N; λ 009°30,12' E	n.d	
Ligunan Sea	n°1050 Zone T802	С	φ 43°59,40' N; λ 009°10,98' E		
		D	φ 44°04,32' N; λ 009°30,96' E		
		А	φ 43°48,84' N; λ 010°10,50' E	_	
Ligurian Sea	Italian nautical chart	В	φ 43°48,90' N; λ 010°16,08' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Ligunan Sea	n°1050 Zone E301	С	φ 43°45,84' N; λ 010°16,50' E		'exercise area"
		D	φ 43°45,90' N; λ 010°10,44' E		
		Α	φ 43°41,04' N; λ 010°03,42' E		
Ligurian Soa	Italian nautical chart	В	φ 43°44,22' N; λ 010°03,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Ligurian Sea	n°1050 Zone E303	С	φ 43°44,34' N; λ 010°05,28' E	n.u	exercise area"
		D	φ 43°42,60' N; λ 010°16,62' E	-	

Location	Source	Vertex and radius (nm) of areas		Depth (m)	Notes
		Α	φ 43°50,46' N; λ 010°06,30' E		
	Italian nautical chart	В	φ 43°54,48' N; λ 009°05,16' E		Polygonal area marked on nautical charts as "firing practice and
Ligurian Sea	n°1050 Zone M503	С	φ 44°01,44' N; λ 009°42,48' E	n.d	exercise area"
		D	φ 44°01,14' N; λ 010°05,16' E		
		E	φ 43°57,60' N; λ 010°10,14' E		
		Α	φ 44°04,26' N; λ 009°06,00' E		
Ligurian Sea	Italian nautical chart	В	φ 44°01,32' N; λ 009°54,66' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Ligunan Sea	n°1050 Zone M502	С	φ 44°00,48' N; λ 009°45,00' E	n.u	exercise area"
		D	φ 44°03,48' N; λ 009°54,30' E		
		А	φ 44°08,64' N; λ 009°00,00' E	 n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Ligurian Sea	Italian nautical chart	В	φ 44°08,64' N; λ 009°55,62' E		
Ligunan Sea	n°1050 Zone M501	С	φ 44°00,00' N; λ 009°06,48' E		
		D	φ 44°00,00' N; λ 009°26,28' E		
		Α	φ 43°00,06' N; λ 010°31,56' E		
Ligurian Sea	Italian nautical chart	В	φ 43°00,06' N; λ 010°27,48' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Ligunan Sea	n°1050 Zone E302	С	φ 43°03,00' N; λ 010°27,48' E	n.u	exercise area"
		D	φ 43°03,00' N; λ 010°32,40' E		
		Α	φ 32°57,50' N; λ 015°07,20' E		
Libyon Soo	Dritich Admiralty Charta	В	φ 32°57,50' N; λ 015°13,20' E	720	Polygonal area marked on nautical charts as "explosives dumping
Libyan Sea	British Admiralty Charts	С	φ 32°52,00' N; λ 015°13,20' E	120	ground"
		D	φ 32°52,00' N; λ 015°07,20' E		
Northern Adriatic Sea	Italian nautical chart n° 39/1991 and Royal Navy	, 4	φ 44°53,40' N; λ 013°24,90' E	41	Circular area marked on nautical charts as "unexploded ordnance dumping area"

Location	Source	Vertex and radius (nm) of areas		Depth (m)	Notes
Northern Adriatic Sea	Italian nautical chart n° 38/1992 and Royal Navy	0.4	φ 45°08,15' N; λ 012°59,10' E	31	Circular area marked on nautical charts as "unexploded ordnance dumping area"
		Α	φ 45°39,19' N; λ 013°44,95' E		
		В	φ 45°39,52' N; λ 013°44,94' E		
Northern Adriatic Sea	Italian nautical chart n° 239/1994	С	φ 45°39,52' N; λ 013°44,45' E	20	Polygonal area marked on nautical charts as "unexploded ordnance dumping area"
Sea	239/1994	D	φ 45°39,27' N; λ 013°44,45' E		ordinance duriping area
		Е	φ 45°39,19' N; λ 013°44,65' E	-	
Northern Adriatic Sea	Italian nautical chart n° 923/2004	4	φ 44°25,00' N; λ 014°22,50' E	40	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Northern Adriatic Sea	Italian nautical chart n° 924/2004 and Royal Navy	2	φ 44°51,00' N; λ 013°44,50' E	40	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Northern Adriatic Sea	Italian nautical chart n° 924/2004	4	φ 44°20,00' N; λ 014°21,67' E	50	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Northern Adriatic Sea	Mediterranean Pilot Book Vol. 1C 1982	1.29	φ 45°17,25' N; λ 012°35,05' E	14.5	Circular area marked on nautical charts as "shipwreck loaded with war surplus"
Northern Adriatic Sea	Mediterranean Pilot Book Vol. 1C 1982	0.5	φ 45°26,68' N; λ 012°34,94' E	n.d	Circular area marked on nautical charts as "unexploded ordnance dumping area"

Location	Source	Vertex and radius (nm) of areas		Depth (m)	Notes
		Α	φ 45°37,68 N; λ 012°59,58' E		
Northern Adriatic	Italian nautical chart	В	φ 45°39,06 N; λ 013°06,36' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E349	С	φ 45°39,48 N; λ 013°17,52' E	n.d.	exercise area"
000		D	φ 45°31,62 N; λ 013°17,52' E		
		E	φ 45°31,56 N; λ 012°59,52' E		
		А	φ 45°27,12 N; λ 012°28,44' E		
Northern Adriatic	Italian nautical chart	В	φ 45°28,32 N; λ 012°32,46' E	n.d.	Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E348	С	φ 45°26,40 N; λ 012°34,38' E	n.u.	exercise area"
		D	φ 45°25,26 N; λ 012°30,06' E		
	Italian nautical chart n°1050 Zone E347	Α	φ 45°11,40 N; λ 012°19,26' Ε		Polygonal area marked on nautical charts as "firing practice and
Northern Adriatic		В	φ 45°12,18 N; λ 012°23,10' E	n.d.	
Sea		С	φ 45°09,60 N; λ 012°23,10' E	n.u.	exercise area"
		D	φ 45°09,54 N; λ 012°20,40' E		
		Α	φ 44°39,12 N; λ 012°17,10' E		
		В	φ 44°42,18 N; λ 012°30,54' E		
Northern Adriatic	Italian nautical chart	С	φ 44°34,44 N; λ 012°30,06' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E346	D	φ 44°34,08 N; λ 012°26,40' E	n.a.	exercise area"
		Е	φ 44°31,56 N; λ 012°26,10' E		
		F	φ 44°32,46 N; λ 012°18,30' E		
		Α	φ 44°02,04 N; λ 012°37,38' E		
Northern Adriatic	Italian nautical chart	В	φ 44°02,04 N; λ 012°44,58' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E345	С	φ 44°01,08 N; λ 012°44,64' E	n.d. exercise area"	
		D	φ 44°01,02 N; λ 012°38,88' E		

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
		Α	φ 43°50,76 N; λ 013°02,64' E	-	
Northern Adriatic	Italian nautical chart	В	φ 43°53,04 N; λ 013°02,58' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E343	С	φ 43°53,04 N; λ 013°06,60' E	n.d	exercise area"
004		D	φ 43°50,04 N; λ 013°06,60' E	-	
		E	φ 43°50,04 N; λ 013°03,42' E		
		А	φ 43°51,06 N; λ 013°27,00' E		
Northern Adriatic	Italian nautical chart	В	φ 43°47,04 N; λ 013°32,58' E	- n.d	Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone M541	С	φ 43°39,12 N; λ 013°21,42' E	. II.U	exercise area"
		D	φ 43°42,54 N; λ 013°14,70' E		
	Italian nautical chart n°1050 Zone T841	А	φ 43°46,98 N; λ 013°33,06' E		
Northern Adriatic		В	φ 43°46,98 N; λ 013°50,64' E	- - n.d	Polygonal area marked on nautical charts as "firing practice and
Sea		С	φ 43°37,02 N; λ 013°50,64' E		exercise area"
		D	φ 43°37,14 N; λ 013°33,00' E		
		A	φ 43°12,18 N; λ 014°16,98' E		
Northern Adriatic	Italian nautical chart	В	φ 43°24,30 N; λ 014°34,44' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone T842	С	φ 43°10,08 N; λ 014°54,54' E	. n.u	exercise area"
		D	φ 42°58,26 N; λ 014°39,30' E		
		A	φ 42°05,88 N; λ 014°44,46' E		
Northern Adriatic	Italian nautical chart	В	φ 42°07,08 N; λ 014°44,46' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E341	С	φ 42°07,08 N; λ 014°47,46' E		exercise area"
		D	φ 42°04,38 N; λ 014°47,52' E		
Northern Balearic Sea	British Admiralty Charts	s 0.5	φ 42°55,00' N; λ 005°03,90' E	2000	Circular area marked on nautical charts as "explosives dumping ground"

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
Northern Balearic Sea	Italian nautical chart n° 908/2001	0,5	φ 42°54,67' N; λ 005°53,67' E	10	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Northern Ionian Sea	British Admiralty Charts	1	φ 39°55,00' N; λ 018°00,00' E	100	Circular area marked on nautical charts as "explosives "
Northern Ionian Sea	Italian nautical chart n° 920/2000 and Royal Navy	5	φ 39°49,00' N; 019°00,00' E	1100	Circular area marked on nautical charts as "unexploded ordnance dumping area"
		A	φ 38°12,78' N; λ 015°17,46' E		
Northern Ionian	Italian nautical chart	В	φ 38°14,16' N; λ 015°17,46' E		Delugenel area marked on neutical charts on "firing practice and
Sea	n°1050 Zone M552	С	φ 38°20,10' N; λ 015°30,42' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
oca		D	φ 38°20,10' N; λ 015°37,44' E		
		E	φ 38°16,62' N; λ 015°37,44' E		
		A	φ 40°03,36' N; λ 017°13,20' E		Polygonal area marked on nautical charts as "firing practice and d. exercise area"
Northern Ionian	Italian nautical chart	B	φ 39°52,08' N; λ 017°37,98' E	n.c	
Sea	n°1050 Zone T834	C	φ 39°33,96' N; λ 017°37,98' E	11.0	
		D	φ 39°33,96' N; λ 017°13,20' E		
		A	φ 38°50,28' N; λ 016°39,78' E		
		B	φ 38°49,44' N; λ 016°43,26' E		
Northern Ionian	Italian nautical chart	С	φ 38°47,10' N; λ 016°41,46' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E337	D	φ 38°46,86' N; λ 016°39,24' E	11.0	^{1.} exercise area"
		E	φ 38°46,86' N; λ 016°36,30' E		
		F	φ 38°50,10' N; λ 016°37,98' E		
		Α	φ 42°21,50' N; λ 011°26,00' E		
Northern	British Admiralty Charts	B	φ 42°18,50' N; λ 011°33,00' E	40	Entry Prohibited (explosives)
Tyrrhenian Sea		C	φ 42°17,00' N; λ 011°32,50' E	10	
		D	φ 42°19,00' N; λ 011°24,00' E		

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
		А	φ 38°53,45' N; λ 008°37,34' E		
Sardinia Channel	Mediterranean Pilot	В	φ 38°51,55' N; λ 008°37,34' E	n.d.	Polygonal area marked on nautical charts as "unexploded
	Book Vol. 1C 1982	С	φ 38°51,55' N; λ 008°39,98' E		ordnance dumping area"
		D	φ 38°53,60' N; λ 008°39,98' E		
	Mediterranean Pilot Book Vol. 1C 1982 and Royal Navy	А	φ 38°58,22' N; λ 008°34,97' E		
Sardinia Channel	Mediterranean Pilot Book Vol. 1C 1982 and Royal Navy	В	φ 38°51,31' N; λ 008°34,97' E	n.d. Polygonal area marked on nautical charts as "unexploded ordnance dumping area"	
	Mediterranean Pilot Book Vol. 1C 1982 and Royal Navy	С	φ 38°51,31' N; λ 008°43,03' E		ordnance dumping area"
	Mediterranean Pilot Book Vol. 1C 1982 and Royal Navy	D	φ 38°55,38' N; λ 008°43,03' E		
		А	φ 38°59,28' N; λ 008°46,14' E		
		В	φ 39°00,36' N; λ 008°33,78' E		
		С	φ 39°00,42' N; λ 008°54,96' E		
Sardinia Channel	Italian nautical chart	D	φ 38°50,16' N; λ 008°53,46' E	n.d.	Polygonal area marked on nautical charts as "firing practice and
	n°1050 Zone T811	E	φ 38°40,68' N; λ 008°06,78' E	n.u.	exercise area"
		F	φ 38°40,32' N; λ 008°24,66' E		
		G	φ 38°49,68' N; λ 008°20,28' E		
		Н	φ 38°55,50' N; λ 008°01,98' E		

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
		Α	φ 38°56,40' N; λ 008°12,66' E		
		В	φ 38°57,12' N; λ 008°24,66' E		
	Italian nautical chart	С	φ 38°48,36' N; λ 008°10,62' E		Polygonal area marked on nautical charts as "firing practice and
Sardinia Channel	n°1050 Zone E311	D	φ 38°43,20' N; λ 008°44,28' E	n.d	exercise area"
		E	φ 38°47,22' N; λ 008°05,28' E		
		F	φ 38°49,08' N; λ 008°03,30' E		
		G	φ 38°55,38' N; λ 008°00,48' E		
		Α	φ 41°30,40' N; λ 018°59,83' E		
	Italian nautical chart n°	В	φ 40°30,40' N; λ 018°59,96' E		
Sardinia Sea	6012/1997	С	φ 40°14,98' N; λ 019°09,97' E	0-500	Polygonal area marked on nautical charts as "mine field"
		D	φ 40°15,40' N; λ 019°25,78' E		
		E	φ 41°30,70' N; λ 019°31,18' E		
Sardinia Sea	Mediterranean Pilot Book Vol. 1C 1982 and Royal Navy	1	φ 39°47,43' N; λ 008°28,62' E	n.d	Circular area marked on nautical charts as "unexploded ordnance dumping area"
	Italian nautical chart n°1050 Zone T812	Α	φ 39°43,38' N; λ 008°31,32' E		
	Italian nautical chart n°1050 Zone T812	В	φ 39°43,32' N; λ 008°16,32' E		
	Italian nautical chart n°1050 Zone T812	С	φ 39°47,04' N; λ 008°16,14' E		
Sardinia Sea	Italian nautical chart n°1050 Zone T812	D	φ 39°49,02' N; λ 008°45,78' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
	Italian nautical chart n°1050 Zone T812	Е	φ 39°47,52' N; λ 008°17,64' E		
	Italian nautical chart n°1050 Zone T812	F	φ 39°46,86' N; λ 008°16,32' E		
	Italian nautical chart n°1050 Zone T812	G	φ 39°44,46' N; λ 008°54,12' E		

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
Sicilian Channel	British Admiralty Charts	A B C D	φ 37°24,00' N; λ 010°11,50' E φ 37°24,00' N; λ 010°13,00' E φ 37°22,50' N; λ 010°11,50' E φ 37°22,50' N; λ 010°13,00' E	70	Polygonal area marked on nautical charts as "dangerous for trawling"
Sicilian Channel	Italian nautical chart n° 917/1986	1.5	φ 36°07,00' N; λ 014°15,00' E	200	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Sicilian Channel	British Advice to Mariners	A B C D	φ 37°45,00' N; λ 010°15,00' E φ 37°45,00' N; λ 010°30,00' E φ 38°00,00' N; λ 010°15,00' E φ 38°00,00' N; λ 010°30,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sicilian Channel	British Advice to Mariners	A B C D	φ 35°40,00' N; λ 011°30,00' E φ 35°40,00' N; λ 011°50,00' E φ 35°30,00' N; λ 011°30,00' E φ 35°30,00' N; λ 011°50,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sicilian Channel	British Advice to Mariners Zone D1	A B C D	$ \phi 35^{\circ}05,00' \text{ N}; \lambda 014^{\circ}06,00' \text{ E} $	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sicilian Channel	British Advice to Mariners Zone D3	A B C D E	$ \begin{array}{c} \phi \; 36^\circ 01,00' \; N; \; \lambda \; 014^\circ 12,00' \; E \\ \phi \; 35^\circ 58,00' \; N; \; \lambda \; 014^\circ 20,00' \; E \\ \phi \; 35^\circ 55,00' \; N; \; \lambda \; 014^\circ 20,00' \; E \\ \phi \; 35^\circ 51,00' \; N; \; \lambda \; 014^\circ 14,00' \; E \\ \phi \; 35^\circ 56,00' \; N; \; \lambda \; 014^\circ 10,00' \; E \\ \end{array} $	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sicilian Channel	British Advice to Mariners Zone D4	8.5	φ 35°40,00' N; λ 014°59,00' E	n.d	Circular area marked on nautical charts as "firing practice and exercise area"

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
		Α	φ 38°08,52' N; λ 012°00,18' E		
		В	φ 38°08,76' N; λ 012°30,24' E		
Sicilian Channel	Italian nautical chart	С	φ 37°59,70' N; λ 012°30,54' E	n.d	Polygonal area marked on nautical charts as "firing practice and
	n°1050 Zone M521	D	φ 37°47,22' N; λ 012°26,94' Ε		"exercise area"
		E	φ 37°42,42' N; λ 012°15,06' E		
		F	φ 37°42,12' N; λ 012°00,36' E		
		А	φ 40°28,00' N; λ 017°05,80' E		
Southern Adriatic	British Admiralty Charts	В	φ 40°27,10' N; λ 017°06,50' E	20	Circular area marked on nautical charts as "entry prohibited
Sea	Brush Admirally Charls	С	φ 40°27,60' N; λ 017°09,80' E	20	(explosives)"
		D	φ 40°28,50' N; λ 017°10,50' E		
Southern Adriatic Sea	British Admiralty Charts	2	φ 40°21,50' N; λ 016°58,00' E	600	Circular area marked on nautical charts as "entry prohibited (explosives)"
~ ··· · ···		Α	φ 40°25,10' N; λ 017°10,50' E		Circular area marked on nautical charts as "entry prohibited
Southern Adriatic Sea	British Admiralty Charts	В	φ 40°25,20' N; λ 017°11,50' E	20	
Sea	-	С	φ 40°24,20' N; λ 017°11,50' E		(explosives)"
		Α	φ 40°27,00' N; λ 017°08,50' E		
Southern Adriatic	Dritich Admiralty Charta	В	φ 40°26,10' N; λ 017°10,80' E	45	Circular area marked on nautical charts as "entry prohibited
Sea	British Admiralty Charts	С	φ 40°25,80' N; λ 017°08,00' E	45	(explosives)"
		D	φ 40°25,40' N; λ 017°09,40' E		
Southern Adriatic Sea	Italian nautical chart n° 32/2000	1.4	φ 41°56,35' N; λ 016°16,60' E	50	Circular area marked on nautical charts as "unexploded ordnance dumping area"
Southern Adriatic Sea	Italian nautical chart n° 31/1991	1.5	φ 41°33,58' N; λ 016°16,50' E	300	Circular area marked on nautical charts as "unexploded ordnance dumping area"

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes	
Southern Adriatic Sea	Italian nautical chart n° 199/1987	0.5	φ 41°37,00' N; λ 015°54,75' E	10	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
Southern Adriatic Sea	Italian nautical chart n° 921/2001 and Royal Navy	5	φ 41°41,40' N; λ 017°47,60' E	1200	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
Southern Adriatic Sea	Italian nautical chart n° 921/2001 and Royal Navy	9	φ 41°55,80' N; λ 017°25,50' E	1020	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
Southern Adriatic Sea	Italian nautical chart n° 921/2001	5	φ 41°18,17' N; λ 018°28,17' E	1000	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Italian nautical chart n° 921/2001 and Royal Navy	Α	φ 41°28,00' N; λ 018°19,00' E		AIN	
Southern Adriatic		в	В	φ 41°28,00' N; λ 018°31,00' E	· · 1100	Polygonal area marked on nautical charts as "unexploded
Sea		CC	φ 41°45,00' N; λ 018°20,00' E	. 1100	ordnance dumping area"	
		D	φ 41°45,00' N; λ 018°51,00' E			
Southern Adriatic Sea	Italian nautical chart n° 920/2000	0.5	φ 40°41,00' N; λ 018°29,50' E	1100	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
Southern Adriatic Sea	Italian nautical chart n° 920/2000 and Royal Navy	4.6	φ 40°49,00' N; λ 018°51,67' E	1100	Circular area marked on nautical charts as "unexploded ordnance dumping area"	
		Α	φ 41°48,80' N; λ 016°54,78' E			
Southern Adriatic	Pilot Area A.C.A.B.	В	φ 41°43,87' N; λ 016°55,83' E	50	Polygonal area marked on nautical charts as "unexploded ordnance dumping area"	
Sea	Project	С	φ 41°43,55' N; λ 016°53,17' E	50		
		D	φ 41°48,48' N; λ 016°52,12' E			

Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
		Α	φ 41°12,85' N; λ 016°35,01' E		
Southern Adriatic	ICRAM	В	_φ 41°12,95' N; λ 016°35,31' E	· n.d	Polygonal area marked on nautical charts as "unexploded
Sea		<u> </u>	φ 41°12,85' N; λ 016°35,35' E		ordnance dumping area"
		D	φ 41°12,75' N; λ 016°35,06' E		
		Α	φ 41°22,51' N; λ 016°14,27' E		
Southern Adriatic	Mediterranean Pilot	В	φ 41°21,06' N; λ 016°15,60' E	. nd	Polygonal area marked on nautical charts as "unexploded ordnance dumping area"
Sea	Book Vol. 1C 1982	С	φ 41°20,61' N; λ 016°15,29' E		[•] ordnance dumping area"
		D	φ 41°22,04' N; λ 016°13,43' E	-	
Couthorn Adriatio	Italian Naut. Chart n°1050 Zone T835	A	φ 41°07,62' N; λ 017°42,78' E		Delugenel area marked on neutical charts on "firing practice and
Southern Adriatic Sea		В	φ 41°07,62' N; λ 017°54,18' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
564		С	φ 40°52,20' N; λ 017°54,18' E		
		Α	φ 41°22,20' N; λ 016°12,42' E		
Southern Adriatic	Italian nautical chart	В	φ 41°26,04' N; λ 016°13,80' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone E3310	С	φ 41°24,06' N; λ 016°19,20' E	n.d	exercise area"
		D	φ 41°30,48' N; λ 016°15,30' E		
		Α	φ 41°11,58' N; λ 016°47,22' E		
o "		В	φ 41°11,64' N; λ 016°49,62' E	•	
Southern Adriatic Sea	Italian nautical chart n°1050 Zone E339	С	φ 41°10,20' N; λ 016°50,28' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
369	11 1000 ZUILE E339	D	φ 41°09,06' N; λ 016°47,64' E	•	exercise area
		E	φ 41°09,12' N; λ 016°47,46' E	•	

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
	Italian nautical chart	Α	φ 40°38,64' N; λ 018°01,50' E		
Southern Adriatic		В	φ 40°39,36' N; λ 018°03,96' E		Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone M534	С	φ 40°36,36' N; λ 018°06,78' E		exercise area"
		D	φ 40°34,92' N; λ 018°02,34' E		
		Α	φ 40°26,10' N; λ 018°15,78' E		
		В	φ 40°30,66' N; λ 018°16,80' E		
Southern Adriatic	Italian nautical chart n°1050 Zone E338	С	φ 40°29,64' N; λ 018°19,32' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Sea		D	φ 40°25,98' N; λ 018°22,86' E		exercise area"
		E	φ 40°23,34' N; λ 018°23,28' E		
		F	φ 40°24,54' N; λ 018°18,12' E		
	Italian nautical chart n°1050 Zone T833	А	φ 40°24,66' N; λ 017°12,30' E		
Southern Adriatic		В	φ 40°18,24' N; λ 017°30,30' E	n.d	Polygonal area marked on nautical charts as "firing practice and
Sea		С	φ 40°00,42' N; λ 017°30,30' E	n.u	'exercise area"
		D	φ 40°07,02' N; λ 017°12,30' E		
	Italian nautical chart n°1050 Zone M533	А	φ 40°24,06' N; λ 017°12,54' E		
Southern Adriatic Sea		В	φ 40°24,78' N; λ 017°12,54' E	n.d	Polygonal area marked on nautical charts as "firing practice and
		С	φ 40°24,84' N; λ 017°13,62' E	n.u	exercise area"
		D	φ 40°24,54' N; λ 017°13,62' E		
Southern Adriatic Sea	Italian nautical chart n°1050 Zone M532	Α	φ 40°26,22' N; λ 016°54,06' E		
		В	φ 40°26,22' N; λ 017°05,52' E	nd	Polygonal area marked on nautical charts as "firing practice and
		С	φ 40°21,48' N; λ 017°05,52' E	n.u	exercise area"
		D	φ 40°21,48' N; λ 016°50,64' E		

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
		Α	φ 40°37,08' N; λ 018°33,12' E		
Southern Adriatic	Italian nautical chart	В	φ 40°39,18' N; λ 018°45,06' E	- n.d	Polygonal area marked on nautical charts as "firing practice and
Sea	n°1050 Zone T836	С	φ 40°21,78' N; λ 018°45,42' E		" exercise area"
		D	φ 40°32,10' N; λ 018°33,36' E		
		А	φ 40°17,22' N; λ 016°47,58' E		
Southern Adriatic	Italian nautical chart	В	φ 40°17,22' N; λ 016°51,36' E	nd	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sea	n°1050 Zone T832	С	φ 39°58,32' N; λ 016°51,60' E	11.0	" exercise area"
		D	φ 39°58,32' N; λ 016°38,16' E		
Southern Baleares Sea	British Advice to Mariners Area LE-D21	10	φ 39°51,10' N; λ 000°40,30' E	n.d	Circular area marked on nautical charts as "firing practice and exercise area"
Southern Baleares Sea	British Advice to Mariners Area LE-D58	5	φ 39°15,50' N; λ 004°59,50' E	n.d	Circular area marked on nautical charts as "firing practice and exercise area"
Oauthana Dalaanaa	British Advice to Mariners	Α	φ 39°05,00' N; λ 002°24,00' E		Debuggerel and an activel shorts as "firing prosting and
Southern Baleares Sea		В	φ 39°05,00' N; λ 002°49,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Sea		С	φ 39°21,30' N; λ 003°11,40' E		exercise area
<u> </u>	British Advice to Mariners	Α	φ 39°35,20' N; λ 003°25,20' E		
Southern Baleares Sea		В	φ 39°30,00' N; λ 003°49,00' E	n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
		С	φ 39°50,00' N; λ 003°49,00' E		exercise area
Southern Ionian Sea	British Advice to Mariners Zone D2	Α	φ 36°31,00' N; λ 017°00,00' E		
		В	φ 35°30,00' N; λ 017°35,00' E		Polygonal area marked on nautical charts as "firing practice and
		С	φ 35°41,00' N; λ 015°25,00' E	n.d	exercise area"
		D	φ 36°31,00' N; λ 015°50,00' E		

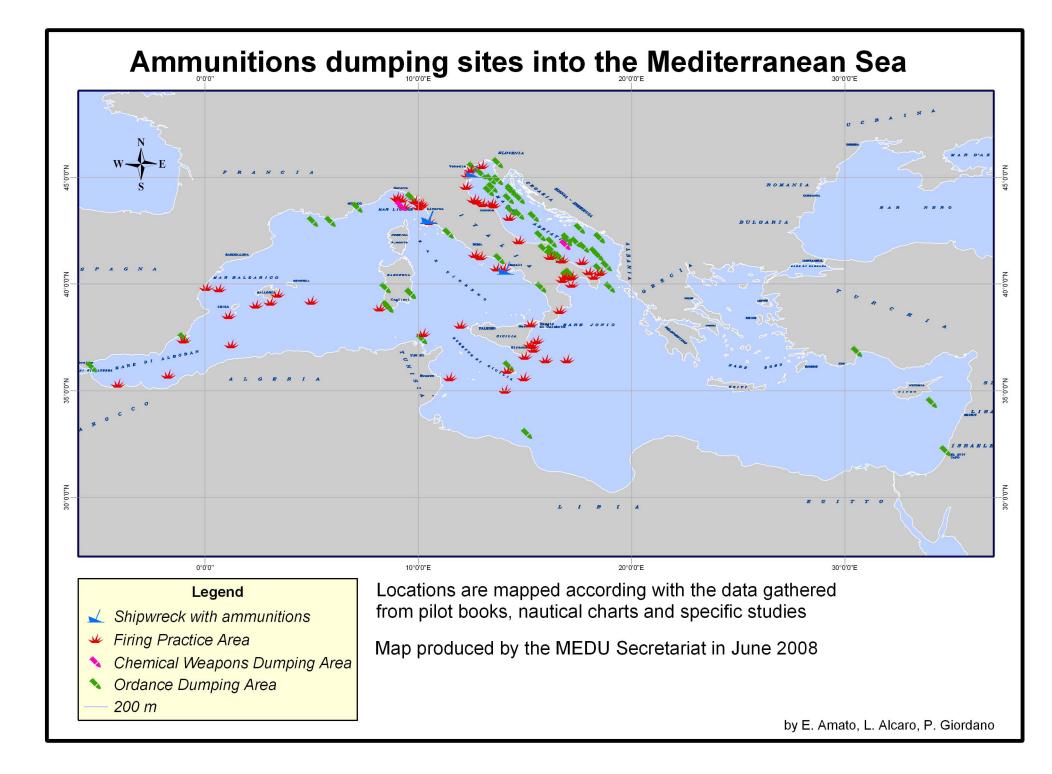
SeaMariners Zone D6C φ 36°11,00' N; λ 016°00,00' EInd. exercise area"D φ 36°11,00' N; λ 016°00,00' ED φ 36°11,00' N; λ 016°00,00' EDSouthern Ionian SeaItalian nautical chart n°1050 Zone T821D φ 37°22,92' N; λ 015°15,66' EDD φ 37°04,86' N; λ 015°22,58' ED φ 37°04,86' N; λ 015°29,58' En.d.E φ 37°04,92' N; λ 015°21,54' ED φ 37°04,92' N; λ 015°15,54' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T823B φ 37°25,08' N; λ 015°34,98' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T823B φ 37°25,08' N; λ 015°34,98' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A φ 37°10,98' N; λ 015°36,48' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A φ 37°00,06' N; λ 015°43,00' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A φ 37°00,06' N; λ 015°43,05' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A φ 37°00,06' N; λ 015°43,05' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A φ 37°00,06' N; λ 015°25,50' En.d.B φ 37°00,06' N; λ 015°43,50' ED φ 37°00,06' N; λ 015°43,50' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T822D φ 37°00,06' N; λ 015°53,50' En.d.<	Location	Source	Vertex or radius (nm) of areas	Coordinates	Depth (m)	Notes
SeaMariners Zone D6 C ϕ 36°11,00' N; λ 016°00,00' En.d. exercise area"D ϕ 36°11,00' N; λ 017°00,00' EB ϕ 37°15,06' N; λ 015°15,66' EB ϕ 37°22,86' N; λ 015°19,98' EC ϕ 37°04,86' N; λ 015°29,58' ED ϕ 37°04,86' N; λ 015°29,58' EE ϕ 37°04,92' N; λ 015°21,54' EF ϕ 37°25,08' N; λ 015°15,54' EF ϕ 37°25,08' N; λ 015°49,58' ESouthern Ionian SeaItalian nautical chart n°1050 Zone T823Southern Ionian SeaItalian nautical chart n°1050 Zone T824Southern Ionian SeaItalian nautical chart n°1050 Zone T824Southern Ionian SeaItalian nautical chart n°1050 Zone T824Southern Ionian SeaItalian nautical chart 			Α			
SeaMariners Zone D6C ϕ 36°11,00' N; λ 016°00,00' Eexercise area"D ϕ 36°11,00' N; λ 015°00,00' ED ϕ 36°11,00' N; λ 015°00,00' Eexercise area"Southern Ionian SeaItalian nautical chartC ϕ 37°22,92' N; λ 015°19,98' En.d.D ϕ 37°04,92' N; λ 015°29,58' ED ϕ 37°04,92' N; λ 015°15,64' En.d.Southern Ionian SeaItalian nautical chartA ϕ 37°25,08' N; λ 015°24,54' En.d.Southern Ionian SeaItalian nautical chartB ϕ 37°25,08' N; λ 015°43,68' En.d.Southern Ionian SeaItalian nautical chartB ϕ 37°25,08' N; λ 015°43,68' En.d.Southern Ionian SeaItalian nautical chartB ϕ 37°15,18' N; λ 015°34,48' En.d.Southern Ionian SeaItalian nautical chartB ϕ 37°10,08' N; λ 015°43,08' En.d.Southern Ionian SeaItalian nautical chartB ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chartA ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chartA ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chartA ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chartsA ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chartsC ϕ 37°00,18' N; λ 015°25,50' EB ϕ 37°00,18			В	φ 36°31,00' N; λ 017°00,00' E	n d	Polygonal area marked on nautical charts as "firing practice and
Southern Ionian SeaItalian nautical chartA \hat{q} 37°15,06' N; λ 015°15,66' E B \hat{q} 37°22,92' N; λ 015°19,98' E C \hat{q} 37°22,92' N; λ 015°29,58' E D \hat{q} 37°04,86' N; λ 015°29,58' E E \hat{n} d.Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823 \hat{P} 37°13,98' N; λ 015°24,54' E F \hat{P} 37°13,98' N; λ 015°24,54' E \hat{n} .d.Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823 \hat{P} 37°10,98' N; λ 015°44,60' E D \hat{q} 37°10,98' N; λ 015°44,08' E D \hat{q} 37°10,98' N; λ 015°44,08' E D \hat{q} 37°10,98' N; λ 015°44,08' E D \hat{q} 37°10,98' N; λ 015°43,08' E D \hat{q} 37°00,06' N; λ 015°43,05' E D \hat{q} 37°00,06' N; λ 015°43,08'	Sea	Mariners Zone D6			11.0	"exercise area"
Southern Ionian SeaItalian nautical chart n°1050 Zone T821B ϕ 37°22,92' N; λ 015°19,98' E C ϕ 37°22,86' N; λ 015°29,58' E En.d.Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T821F ϕ 37°25,08' N; λ 015°21,54' E FR ϕ 37°25,08' N; λ 015°34,98' E B ϕ 37°25,08' N; λ 015°34,98' E B ϕ 37°25,08' N; λ 015°34,98' E B $h.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823A ϕ 37°15,18' N; λ 015°43,06' E D $h.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°0,06' N; λ 015°43,06' E D $h.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°0,06' N; λ 015°43,06' E D $h.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822A ϕ 37°0,018' N; λ 015°43,05' E D ϕ 37°0,018' N; λ 015°43,05' E D $h.d.$ Southern Ionian SeaItalian nautical chart n°1050 Zone T822C ϕ 37°0,018' N; λ 015°43,05' E D $h.d.$ Southern Ionian SeaItali			D	φ 36°11,00' N; λ 017°00,00' E		
Southern Ionian SeaItalian nautical chart n°1050 Zone T821C ϕ 37°22,86' N; λ 015°29,58' E D ϕ 37°04,86' N; λ 015°29,58' E E F ϕ 37°04,86' N; λ 015°29,58' E E F ϕ 37°04,86' N; λ 015°21,54' E F F ϕ 37°13,98' N; λ 015°15,54' E F F ϕ 37°25,08' N; λ 015°14,86' E E F $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823A ϕ 37°25,08' N; λ 015°48,60' E C ϕ 37°15,18' N; λ 015°48,60' E C $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824B ϕ 37°10,98' N; λ 015°21,96' E C ϕ 37°10,98' N; λ 015°25,00' E C $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824B ϕ 37°00,18' N; λ 015°25,50' E C $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°00,18' N; λ 015°25,50' E B $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822A ϕ 37°00,18' N; λ 015°25,50' E B A ϕ 37°00,06' N; λ 015°43,06' E D $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822 ϕ 37°10,08' N; λ 015°53,36' E E <td></td> <td rowspan="6"></td> <td>Α</td> <td>φ 37°15,06' N; λ 015°15,66' E</td> <td></td> <td></td>			Α	φ 37°15,06' N; λ 015°15,66' E		
Sea $n^{\circ}1050$ Zone T821 D ϕ 37°04,86' N; λ 015°29,58' E $n.d.$ E ϕ 37°04,92' N; λ 015°21,54' EF ϕ 37°04,92' N; λ 015°15,54' E $n.d.$ exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823B ϕ 37°25,08' N; λ 015°48,60' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T823B ϕ 37°10,98' N; λ 015°48,60' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°00,06' N; λ 015°43,08' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°00,06' N; λ 015°25,50' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°01,08' N; λ 015°25,50' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822A ϕ 37°10,98' N; λ 015°43,08' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822 D ϕ 37°10,98' N; λ 015°53,58' E $n.d.$ Polygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian 			В	φ 37°22,92' N; λ 015°19,98' E		
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Sean°1050 Zone 1823C ϕ 37°15,36' N; λ 015°48,60' Em° exercise area"D ϕ 37°15,18' N; λ 015°36,48' EA ϕ 37°10,98' N; λ 015°21,96' ESouthern Ionian SeaItalian nautical chart n°1050 Zone T824B ϕ 37°00,06' N; λ 015°43,08' En.d.D ϕ 37°00,18' N; λ 015°25,50' ED ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T824A ϕ 37°00,18' N; λ 015°25,50' En.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T822A ϕ 37°00,06' N; λ 015°43,08' E B ϕ 37°00,06' N; λ 015°43,08' E Bn.d.Southern Ionian SeaItalian nautical chart n°1050 Zone T822C ϕ 37°11,10' N; λ 015°43,08' E B ϕ 37°11,10' N; λ 015°43,08' E Bn.d.Polygonal area marked on nautical charts aC ϕ 37°10,98' N; λ 015°53,46' E En.d.D ϕ 37°10,98' N; λ 015°53,58' En.d.Polygonal area marked on nautical charts as "firing practice exercise area"	Southern Ionian		В	φ 37°25,08' N; λ 015°48,60' E	nd	Polygonal area marked on nautical charts as "firing practice and
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Sean°1050 Zone T824C φ 37°00,06' N; λ 015°43,50' En.d. exercise area"D φ 37°00,18' N; λ 015°25,50' EA φ 37°00,18' N; λ 015°25,50' EBSouthern Ionian SeaItalian nautical chart n°1050 Zone T822C φ 37°11,10' N; λ 015°43,50' En.d. exercise area"D φ 37°00,06' N; λ 015°43,50' EB φ 37°00,06' N; λ 015°43,50' En.d. exercise area"Southern Ionian SeaItalian nautical chart n°1050 Zone T822C φ 37°10,98' N; λ 015°53,46' En.d. Polygonal area marked on nautical charts as "firing practice exercise area"			A	φ 37°10,98' N; λ 015°21,96' E		
Sea n°1050 Zone 1824 C $\varphi 37^{\circ}00,06' \text{ N}; \lambda 015^{\circ}43,50' \text{ E}$ D $\varphi 37^{\circ}00,18' \text{ N}; \lambda 015^{\circ}25,50' \text{ E}$ A $\varphi 37^{\circ}00,18' \text{ N}; \lambda 015^{\circ}25,50' \text{ E}$ B $\varphi 37^{\circ}00,06' \text{ N}; \lambda 015^{\circ}25,50' \text{ E}$ B $\varphi 37^{\circ}00,06' \text{ N}; \lambda 015^{\circ}43,50' \text{ E}$ B $\varphi 37^{\circ}00,06' \text{ N}; \lambda 015^{\circ}43,08' \text{ E}$ Southern Ionian Italian nautical chart Sea n°1050 Zone T822 D $\varphi 37^{\circ}10,98' \text{ N}; \lambda 015^{\circ}53,46' \text{ E}$ E $\varphi 36^{\circ}51,12' \text{ N}; \lambda 015^{\circ}53,58' \text{ E}$ A describing the second	Southern Ionian		В	φ 37°11,10' N; λ 015°43,08' E	nd	Polygonal area marked on nautical charts as "firing practice and
$ \begin{array}{c c} A & \phi \ 37^{\circ}00, 18' \ N; \ \lambda \ 015^{\circ}25, 50' \ E \\ B & \phi \ 37^{\circ}00, 06' \ N; \ \lambda \ 015^{\circ}43, 50' \ E \\ \hline B & \phi \ 37^{\circ}00, 06' \ N; \ \lambda \ 015^{\circ}43, 50' \ E \\ \hline B & \phi \ 37^{\circ}11, 10' \ N; \ \lambda \ 015^{\circ}43, 08' \ E \\ \hline D & \phi \ 37^{\circ}10, 98' \ N; \ \lambda \ 015^{\circ}53, 46' \ E \\ \hline E & \phi \ 36^{\circ}51, 12' \ N; \ \lambda \ 015^{\circ}53, 58' \ E \\ \end{array} \right. \\ \begin{array}{c} n.d. \ Polygonal \ area \ marked \ on \ nautical \ charts \ as \ "firing \ practice \ exercise \ area" \end{array} $	Sea		С	φ 37°00,06' N; λ 015°43,50' E	11.0	^{1.} exercise area"
Southern Ionian Sea n°1050 Zone T822 $\begin{bmatrix} B & \phi 37^{\circ}00,06' \text{ N}; \lambda 015^{\circ}43,50' \text{ E} \\ \hline C & \phi 37^{\circ}11,10' \text{ N}; \lambda 015^{\circ}43,08' \text{ E} \\ \hline D & \phi 37^{\circ}10,98' \text{ N}; \lambda 015^{\circ}53,46' \text{ E} \\ \hline E & \phi 36^{\circ}51,12' \text{ N}; \lambda 015^{\circ}53,58' \text{ E} \end{bmatrix}$ n.d. Polygonal area marked on nautical charts as "firing practice exercise area"			D	φ 37°00,18' N; λ 015°25,50' E		
Southern Ionian SeaItalian nautical chart n°1050 Zone T822C ϕ 37°11,10' N; λ 015°43,08' E D ϕ 37°10,98' N; λ 015°53,46' E EPolygonal area marked on nautical charts as "firing practice exercise area"Southern Ionian Sean°1050 Zone T822D ϕ 37°10,98' N; λ 015°53,46' E En.d.Polygonal area marked on nautical charts as "firing practice exercise area"			Α	φ 37°00,18' N; λ 015°25,50' E		
Sea n°1050 Zone T822 D φ 37°10,98' N; λ 015°53,46' E n.d. exercise area" E φ 36°51,12' N; λ 015°53,58' E 0.10°53,58' E 0.10°53,58' E 0.10°53,58' E			В	φ 37°00,06' N; λ 015°43,50' E		
Sea n°1050 Zone T822 D φ 37°10,98' N; λ 015°53,46' E II.u. exercise area" E φ 36°51,12' N; λ 015°53,58' E E			С	φ 37°11,10' N; λ 015°43,08' E	n 4	Polygonal area marked on nautical charts as "firing practice and
			D	φ 37°10,98' N; λ 015°53,46' E	11.0	
			E	φ 36°51,12' N; λ 015°53,58' E		
F φ 36°51,12' N; λ 015°25,50' E			F	φ 36°51,12' N; λ 015°25,50' E		

Location	Source	Vertex or radius (nm) of areas		Depth (m)	Notes
	Italian nautical chart n°1050 Zone E321	<u>A</u>	φ 36°40,86' N; λ 015°01,26' E	 n.d	Polygonal area marked on nautical charts as "firing practice and exercise area"
Southern Ionian		B	φ 36°38,28' N; λ 015°01,26' E		
Sea		<u> </u>	φ 36°39,36' N; λ 014°59,58' E		
		D	φ 36°39,36' N; λ 015°02,46' E		
West-Southern Tyrrhenian Sea	British Admiralty Charts	1	φ 39°31,25' N; λ 009°39,25' E	50	Circular area marked on nautical charts as "entry prohibited (explosives)"
West-Southern Tyrrhenian Sea	British Admiralty Charts	2.5	φ 39°32,00' N; λ 009°40,00' E	100	Circular area marked on nautical charts as "entry prohibited (explosives)"
	Pilot book for the Adriatic Sea, 1964	А	φ 44°52,50' N; λ 013°44'00' E	- n.d.	Polygonal area in front of the port of Pula marked on nautical charts as "firing practice and exercise area"
Northern Adriatic		В	φ 44°44,00' N; λ 013°53'00' E		
Sea		С	φ 44°39,00' N; λ 013°43'00' E		
		D	φ 44°49,00' N; λ 013°33'00' E		
Northern Adriatic Sea	Pilot book for the Adriatic Sea, 1964	А	φ 44°57,50' N; λ 013°42'00' E		I. Polygonal area north of Brijuni islands marked on nautical charts as "firing practice and exercise area"
		В	φ 44°59,50' N; λ 013°40'00' E	n.d. as	
		С	φ 44°59,70' N; λ 013°42'20' E		
		D	φ 44°58,50' N; λ 013°44'50' E		
		E	φ 44°57,00' N; λ 013°44'50' E		

Location	Source	Vertex or radius (nm) of areas) Coordinates	Depth (m)	Notes
	Pilot book for the Adriatic Sea, 1964	А	φ 43°37,50' N; λ 015°44,80' E		
		В	φ 43°28,00' N; λ 015°45,50' E		
Central Adriatic Sea		С	φ 43°33,00' N; λ 015°25,00' E	n.d	Polygonal area between Island Kornat and Island Zirje marked on nautical charts as "firing practice and exercise area"
ocu		D	φ 43°33,90' N; λ 015°24,80' E		
		E	φ 43°44,30' N; λ 015°27,80' E	-	
	Pilot book for the Adriatic Sea, 1964	А	φ 42°43,00' N; λ 017°00,00' E		
Central Adriatic		В	φ 42°43,00' N; λ 017°20,00' E	n d	Polygonal area SW of the Island of Mljet marked on nautical charts as "firing practice and exercise area"
Sea		С	ϕ 42°34,00' N; λ 017°20,00' E		as "firing practice and exercise area"
		D	ϕ 42°34,00' N; λ 017°00,00' E		
Central Adriatic Sea	Pilot book for the Adriatic Sea, 1964	А	ϕ 42°27,00' N; λ 018°22,00' E	_	
		В	ϕ 42°22,00' N; λ 018°32,00' E	nd	Polygonal area SW from the Boka Kotorska Bay marked on nautical charts as "firing practice and exercise area"
		С	ϕ 42°12,00' N; λ 018°32,00' E		nautical charts as "firing practice and exercise area"
		D	φ 42°21,00' N; λ 018°14,00' E		

Annex III

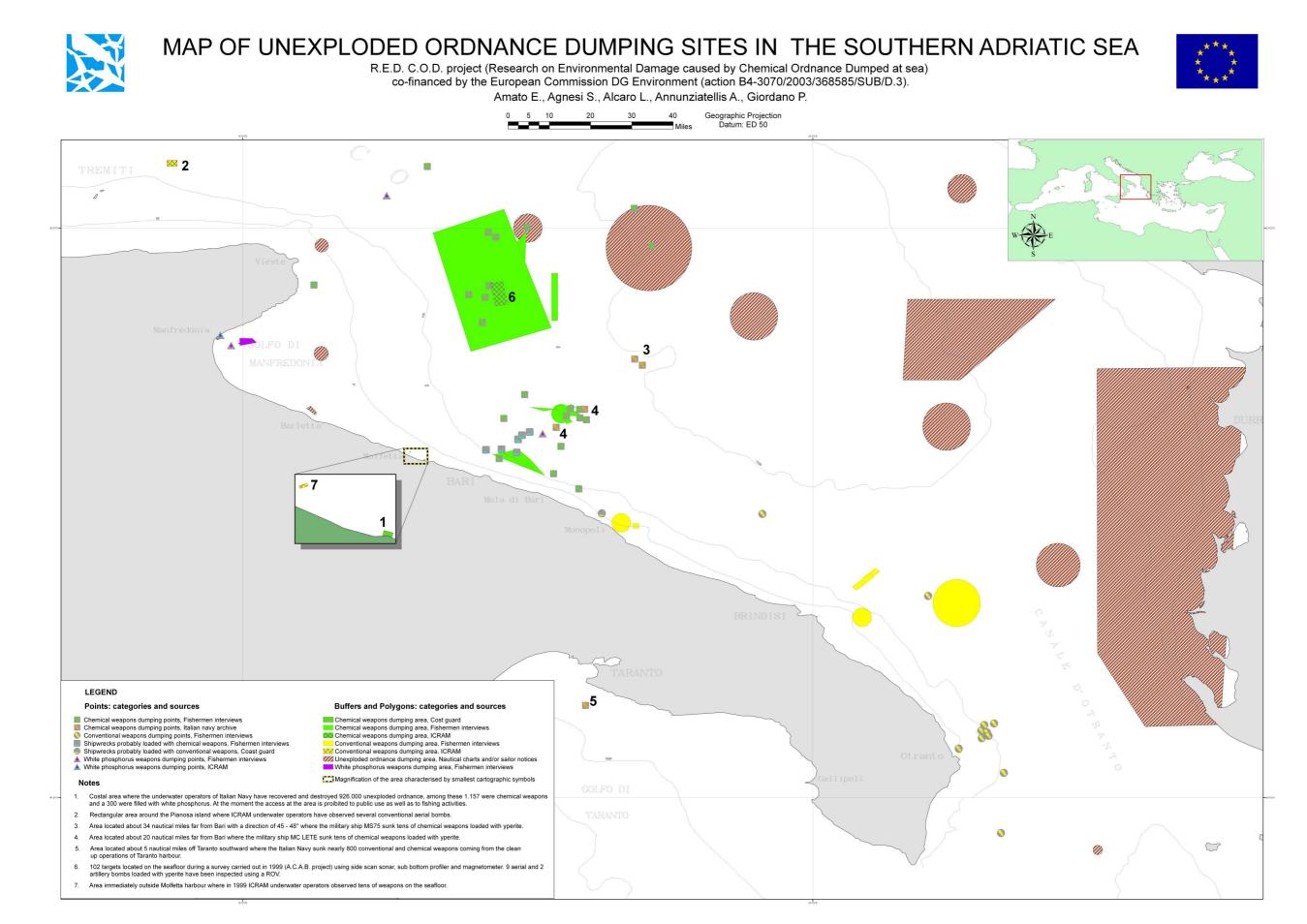
Map of the Mediterranean Sea reporting the officially recorded ammunitions dumping sites and fire practice areas



Annex IV

Map reporting the officially recorded ammunitions dumping sites in the Southern Adriatic Sea*

*as noticed within the RED COD project



Annex V

Map reporting the officially recorded ammunitions dumping sites in the waters surrounding Italy*

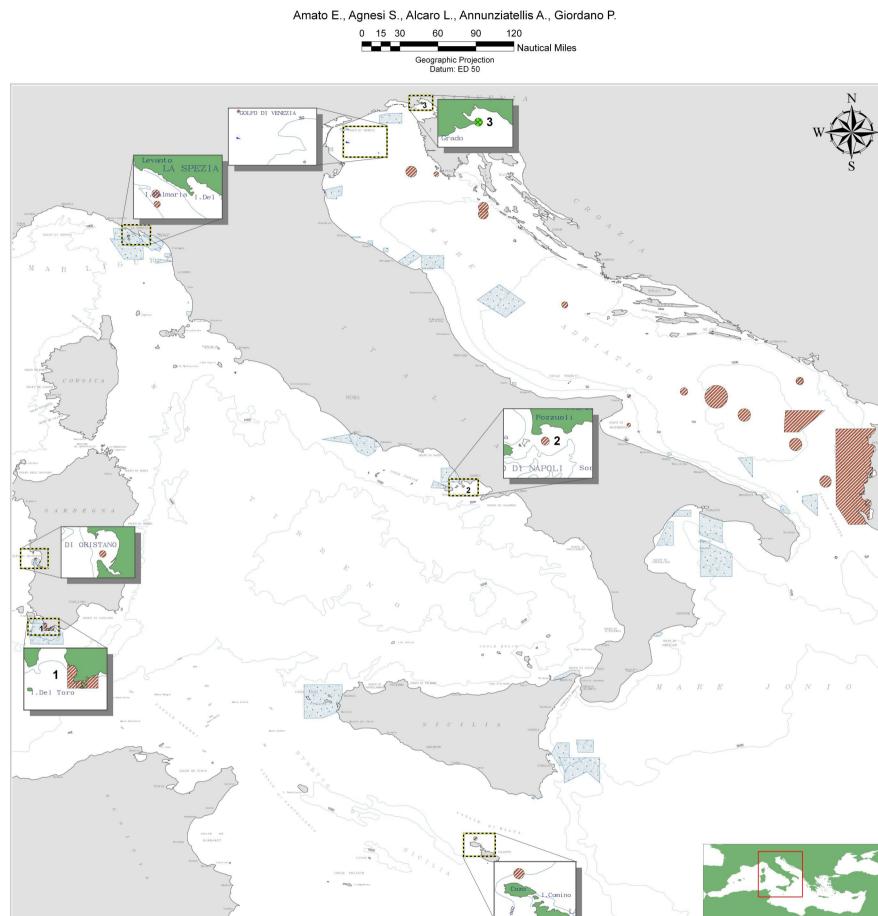
*as noticed within the RED COD project



MAP OF UNEXPLODED ORDNANCE DUMPING SITES IN THE WATER SURROUNDING ITALY



R.E.D. C.O.D. project (Research on Environmental Damage caused by Chemical Ordnance Dumped at sea) co-financed by the European Commission DG Environment (action B4-3070/2003/368585/SUB/D.3)



Legend

Points: categories and sources

SHIPWRECK PROBABLY LOADED WITH CONVENTIONAL WEAPON, NAUTICAL CHARTS AND/OR SAILOR NOTICES MAGNIFICATION OF THE AREAS CHARACTERISED BY SMALLEST CARTOGRAPHIC SYMBOLS

Buffers and Polygons: categories and sources

- UNEXPLODED ORDNANCE DUMPING AREA, NAUTICAL CHARTS AND/OR SAILOR NOTICES
- 🔀 CHEMICAL WEAPONS DUMPING AREA. ITALIAN ARMY
- FIRING PRACTICE AND EXERCISE AREA, NAUTICAL CHARTS

1 Teulada Cape (South Sardinia). Presence on the shoreline of unexploded ordnance

Sulf of Maple, near Misen Cost Net and Cape. Presence on the seaffoor of unexploded ordnance. The area is probably the same as the one indicated by the US Army where a huge quantity of chemical weapons were dumped after WWII. On the nautical charts, in the middle of the area a shipwreck is marked. Harbour of Monfalcone. In 2005 the Italian Navy and CETLI recovered and destroyed at sea about 150 artillery munitions of chemical weapons filled with mustard gas. 2.