

**ANNEX 23**

**RESOLUTION MEPC.135(53)**

**Adopted on 22 July 2005**

**DESIGNATION OF THE GALAPAGOS ARCHIPELAGO  
AS A PARTICULARLY SENSITIVE SEA AREA**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

BEING AWARE of the ecological, social, economic, cultural, scientific and educational value of the Galapagos Archipelago, as well as its vulnerability to damage by international shipping traffic and activities in the area and the steps taken by Ecuador to address that vulnerability,

NOTING that the Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas adopted under resolution A.927(22) set out procedures for the designation of particularly sensitive sea areas,

HAVING CONSIDERED the proposal from Ecuador to designate the Galapagos Archipelago as a Particularly Sensitive Sea Area,

HAVING AGREED that criteria for identification of a Particularly Sensitive Sea Area provided in resolution A.927(22) are fulfilled for the Galapagos Archipelago,

1. DESIGNATES the Galapagos Archipelago as defined in Annexes 1 and 2 to this resolution as a Particularly Sensitive Sea Area; and
2. INVITES Member Governments to note the establishment of associated protective measures defined in Annex 3. The associated protective measure and the date of its entry into force are expected to be adopted by the Assembly at its twenty-fourth session in November/December 2005.

ANNEX 1

**DESCRIPTION OF THE GALAPAGOS ARCHPELAGO  
PARTICULARLY SENSITIVE SEA AREA**

**1 Description of the area**

1.1 The Galapagos Archipelago is a group of islands of volcanic origin, located 502 nautical miles west of the Ecuadorean coast between latitude 02° 00' N, longitude 087° 30' W, and latitude 02° 24' S, longitude 093° 30' W. They are crossed by the Equator line at the Wolf and Ecuador volcanoes on Isabela Island. The total surface area of the Galapagos Islands is 8,006 km<sup>2</sup>. The distance from Darwin Island in the north to Española Island in the south is 414 km, and from Pitt Point (San Cristóbal) to Cape Douglas (Fernandina) 268 km. The Archipelago comprises five islands greater than 500 km<sup>2</sup> (Isabela, Santa Cruz, Fernandina, San Salvador and San Cristóbal); 8 islands between 14 and 173 km<sup>2</sup> (Santa Maria, Marchena, Genovesa, Española, Pinta, Baltra, Santa Fe and Pinzón); 6 islands between 1 and 5 km<sup>2</sup> (Rábida, Baltra, Wolf, Tortuga, Bartolomé and Darwin); 42 islets smaller than 1 km<sup>2</sup>, and 26 rocks. The largest island, Isabela, with an area of 4,588 km<sup>2</sup>, is divided in two by the Perry Isthmus, the northern part covering 2,112 km<sup>2</sup> and the southern 2, 476 km<sup>2</sup>. Isabela has the islands' highest point, namely the summit of Wolf Volcano, at 1,707 m.

1.2 The area of the PSSA is defined by a line connecting the following geographical positions:

(1)	02° 30'.02 N	092° 21'.27 W
(2)	02° 14'.20 N	091° 40'.02 W
(3)	01° 14'.15 N	090° 25'.75 W
(4)	00° 53'.24 N	089° 30'.03 W
(5)	00° 35'.38 S	088° 38'.59 W
(6)	00° 52'.00 S	088° 33'.59 W
(7)	01° 59'.01 S	089° 12'.87 W
(8)	02° 05'.01 S	089° 33'.70 W
(9)	02° 01'.43 S	090° 34'.53 W
(10)	01° 32'.28 S	091° 51'.89 W
(11)	01° 13'.08 S	092° 07'.08 W
(12)	01° 48'.88 N	092° 40'.36 W

1.3 A nautical chart showing the PSSA and the area to be avoided is provided in Annex 2.

**2 Significance of the area**

**Uniqueness**

2.1 The marine and coastal environment of the Galapagos Islands, as well as their terrestrial environment, have very special natural features which are conditioned by the islands' equatorial setting and by their position at the confluence of a complex system of marine currents, whose effects vary in terms of space and time. The geographical isolation and widespread nature of the

islands have influenced the distribution and evolution of the species that exist there, creating biogeographic zones.

### **Dependency**

2.2 The marine environment is crucially important to the survival of a large number of land or coastal organisms. Reptiles (sea turtles and the native marine iguanas), mammals (two endemic seal species and a wide variety of cetaceans) and sea birds (Galapagos penguins, albatross, petrels, flightless cormorant, boobies, seagulls, pelicans and frigates, including a surprisingly high number of endemic species) depend not only on the inshore waters but the whole area of the Galapagos marine reserve and beyond, so important are the “bajos”, the Equatorial Front, the upwelling zones of the Cromwell current and the equatorial currents as feeding grounds.

### **Representativeness**

2.3 Around Galapagos there are cold ocean currents, upwelling zones, and water masses of diverse origin, all of them forming a complex system containing bio-elements from tropical and subtropical regions of South America and from the Indo-Pacific biotic region; the islands are thus cordoned off genetically, creating an area of biogeographical diversification. Galapagos is acknowledged as showing biogeographical affinities not only with the tropical and subtropical South American mainland, but also with representative elements of the Peru-Chile and western Pacific biogeographical regions.

### **Diversity**

2.4 The Galapagos marine reserve has high biodiversity. Galapagos is unique, and is one of the few ocean archipelagos in the world that still maintains its ecosystems and biodiversity without interference from human activities. Its mangroves offer a gathering-place for fish, crustacean and mollusc species. There are also nesting grounds for sea and land birds, some of which, such as the mangrove finch, are found nowhere else in the world.

### **Productivity**

2.5 Primary productivity. These values are generally high and comparable with those recorded in the Gulf of Guayaquil, which are associated with the availability of nutrients produced by upwellings in the photic zone. The highest values for chlorophyll concentration were recorded in the west of the Archipelago. The areas of high productivity inside the Archipelago are associated with local upwellings.

### **Natural character**

2.6 The Galapagos Islands are characterized by unspoilt surroundings leading to conditions of exceptional environmental purity as compared to most of the world’s marine areas. The Archipelago has been recognized as a unique group of oceanic islands which still retains most of its terrestrial and marine biodiversity, thanks to a relatively low-key human presence. The tendency observed in the rest of the world is for biological richness to decrease rapidly as human activities increase.

### **Scientific and educational criteria**

2.7 Since island ecosystems, both terrestrial and marine, are less complex than continental ones, they provide researchers with more tangible clues about the adaptation and dispersion of species, especially if they are unspoilt or relatively unchanged. Galapagos has turned itself into one of the most important places to study evolution, biogeography and animal behaviour. The islands and their surroundings are excellent sites for learning about natural processes, and this is combined with a management strategy to show the island inhabitants how to make good use of the limited existing resources and ensure that those natural processes survive in the long term.

### **3 Vulnerability of the area to damage by international shipping activities**

3.1 In the past ten years, the waters of the Galapagos Islands have been polluted by the groundings of three ships: the **Galapagos Explorer**, the **Don Felipe** and the **Jessica**. On 16 January 2001, the tanker **Jessica** was carrying fuel when it ran aground on the shores of San Cristóbal Island, releasing a mixture of diesel fuel and IFO which spread across a considerable part of the marine reserve. Fortunately the weather conditions were favourable and rapid intervention by the navy, the SPNG and local people, backed by advice from several international organizations ensured that the impact was less than expected.

3.2 During normal operations and when accidents such as the one just described occur, ships discharge a variety of marine pollutants which directly affect marine biodiversity and the large number of protected species that live on land but rely on the sea for food. These substances are usually oils, harmful liquids, sewage water, garbage of all kinds, paints, foreign organisms and harmful solids.

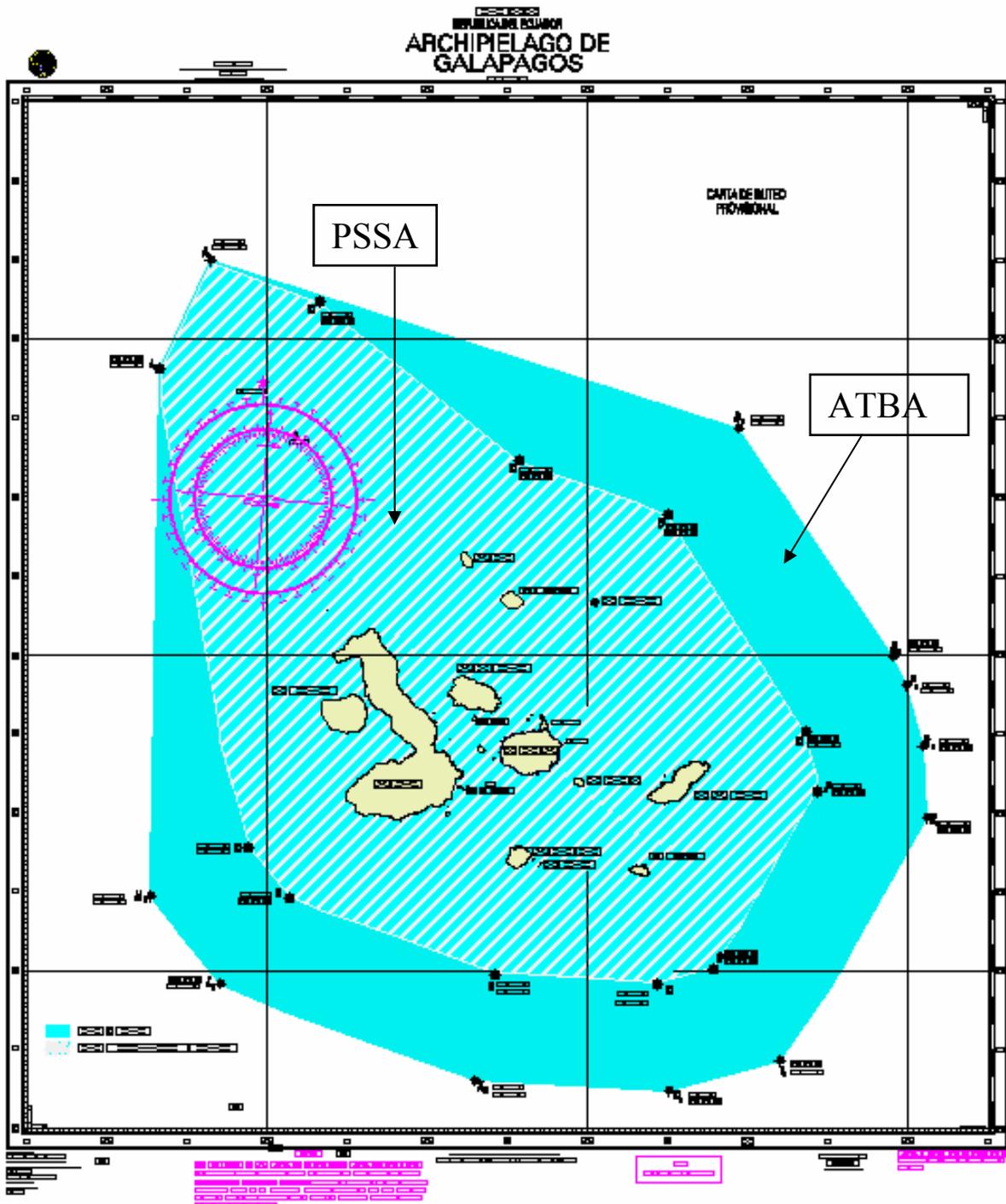
3.3 On average, 2 or 3 international ships per year pass outside the Galapagos marine reserve (at 40 nautical miles) carrying pollutants and radioactive waste. Likewise, general international cargo traffic passes to the north, at approximately 20 nautical miles from Isabela Island, always keeping its distance from the marine reserve, before heading for Panama. If one of these international vessels containing pollutants or radioactive waste were involved in an accident at a geographical location that allowed its cargo to be carried by the marine currents towards the coasts of the Archipelago, particularly to a critical habitat containing sensitive species, the result would be irreparable and major damage.

3.4 The Galapagos Archipelago and its surrounding waters have been declared a national and World Heritage site, recognized worldwide for its scientific and cultural importance.

3.5 The designation of the Galapagos Archipelago as a PSSA will enhance maritime safety, safety of navigation and protection of the marine environment in the area concerned.

ANNEX 2

PARTICULARLY SENSITIVE SEA AREA AND AREA TO BE AVOIDED CHART



Reference chart I.O.A.2 (1st Edition, 2003)  
Datum Provisional América del Sur 1956 (La Canoa, Venezuela)

ANNEX 3

**ESTABLISHMENT OF AN AREA TO BE AVOIDED IN THE GALAPAGOS  
ARCHIPELAGO PARTICULARLY SENSITIVE SEA AREA**

Reference chart I.O.A.2 (1<sup>st</sup> Edition, 2003)

~~Datum Provisional America del Sur 1956 (La Canoa, Venezuela)~~

**Description of the area to be avoided**

All ships and barges carrying cargoes of oil or hazardous material and all ships of 500 gross tonnage and above ~~solely~~ in transit should avoid the area bounded by a line connecting the following geographical positions:

(1)	02° 30'.02 N	092° 21'.27 W
(2)	01° 26'.13 N	089° 03'.39 W
(3)	00° 00'.50 S	088° 05'.61 W
(4)	00° 11'.70 S	088° 00'.63 W
(5)	00° 34'.70 S	087° 54'.42 W
(6)	01° 02'.01 S	087° 52'.81 W
(7)	02° 34'.87 S	088° 48'.15 W
(8)	02° 46'.00 S	089° 29'.54 W
(9)	02° 41'.80 S	090° 42'.06 W
(10)	02° 05'.01 S	092° 17'.53 W
(11)	01° 31'.83 S	092° 43'.77 W
(12)	01° 48'.88 N	092° 40'.36 W

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