
Documents 1611A

Logbooks kept by Hernando de los Ríos Coronel of the voyage of 1611 via Sarigan Island

Sources: 1) BNM ms. 3176, folios 214-219v; 2) MN ms. 142, folios 107v-112.

A1. An experiment to measure longitudes

Logbook of the voyage made in 1611 by the Philippine galleons from the port of Acapulco to Manila, aboard which was Licentiate Fernando de los Rios Coronel who, by order of his Majesty, made measurements with the fixed and regular compasses of Luis de Fonseca during this voyage, in accordance with the order given by H.M.

J.H.S. Mary Joseph

[Fol. 215] We began our voyage from the port of Acapulco, where I adjusted three sea compasses according to the secret procedure and method that Luis de Fonseca gave me, by order of H.M., and I set another so that it would show the longitude from east to west in accordance with its rules, and we sailed on Thursday 24 March [1611], carrying two instruments for the above-said purpose, which was to mark the compass and see if it was fixed and to compare it with the longitude, to check if the latter could be determined by the former's variation.

Acapulco Lat. 16°30'

We left steering that day and the following Friday, Saturday, Sunday and Monday to SSW...

Historical comments, by the Editor.

The rest of this logbook is entirely full of readings taken of the variations of the compass. No mention is made of the Ladrone Islands in this logbook. The two ships going

west to the Philippines that year were the **Santissima Trinidad**, and the **San Buenaventura** that had just been bought from Hosuke, the Japanese; this was the ship that Will Adams had built. The ship **San Francisco** of Captain Vizcaino, with Hosuke (alias Jocuquendono) and other Japanese passengers had left Acapulco 2 days earlier, bound directly for Japan.

This episode was not the only time that Hernando de los Ríos was interested in navigation and astronomy. Born ca. 1539, he had first passed to the Philippines in 1588. On 27 June 1597, he had already sent a memorandum to the King in which he said that he was writing a book on the construction and uses of an astrolabe. Navarrete¹ says that Governor Dasmariñas intended to send Ríos in 1590 to discover the Strait of Anian, but that other events intervened (the expedition to the Moluccas and the premature death of the Governor). In 1594, Ríos was an infantry captain for the expedition to the Moluccas; then he went on to the expedition to Cambodia in which he was shipwrecked in China. He left Manila in 1605 to become procurator-general of the Philippines at the Court in Madrid. He kept a logbook of the voyage in both oceans (see Doc. 1604/4). Navarrete relates the background to his 1611 voyage thus:

During his stay in the [Iberian] Peninsula, he promoted whatever causes he could to increase the prosperity of the Philippines, and acquired such a reputation at Court and in the courts [of justice] that, when he had already gone to Seville [in 1610] to return to those [Philippine] islands, at the time that the Council of the Indies in a war meeting was about to discuss the plan to experiment with the compasses proposed by Luis de Fonseca to determine longitude, he was consulted on 11 May 1610 about the selection of the pilots who should be charged with this study. He answered them by proposing that the experiments should be carried out at different latitudes in order to make the results more accurate.

They commissioned him to make these observations during his navigation to New Spain, and from there to Manila. To that end, Fonseca was ordered to go to Seville to deal with him and with the most intelligent cosmographers and pilots, to give to that great mathematician the instruments and necessary instructions. The planner did so, and Ríos, after he had made 4 observations overland to Cádiz, sailed on 29 June, and already on 5 August he was writing to Fonseca from [the island of] Guadalupe, saying that none of his compasses were of any use. He wrote the same thing to the King and to Secretary Pedro de Ledesma from Mexico, on the 5th and 7th of October respectively, adding what he could observe about the errors on the charts and the ignorance of the pilots, with a very commendable candor and ingenuity, and offering to continue his experiences as far as the Philippines.

So he did, leaving Acapulco on 23 March 1611; during this voyage he sighted the Ladrone Islands on 29 May and, on 10 June, the Cape of Espiritu Santo, always comparing the ordinary compass with that of Fonseca and using the amplitudes [sic] calculated

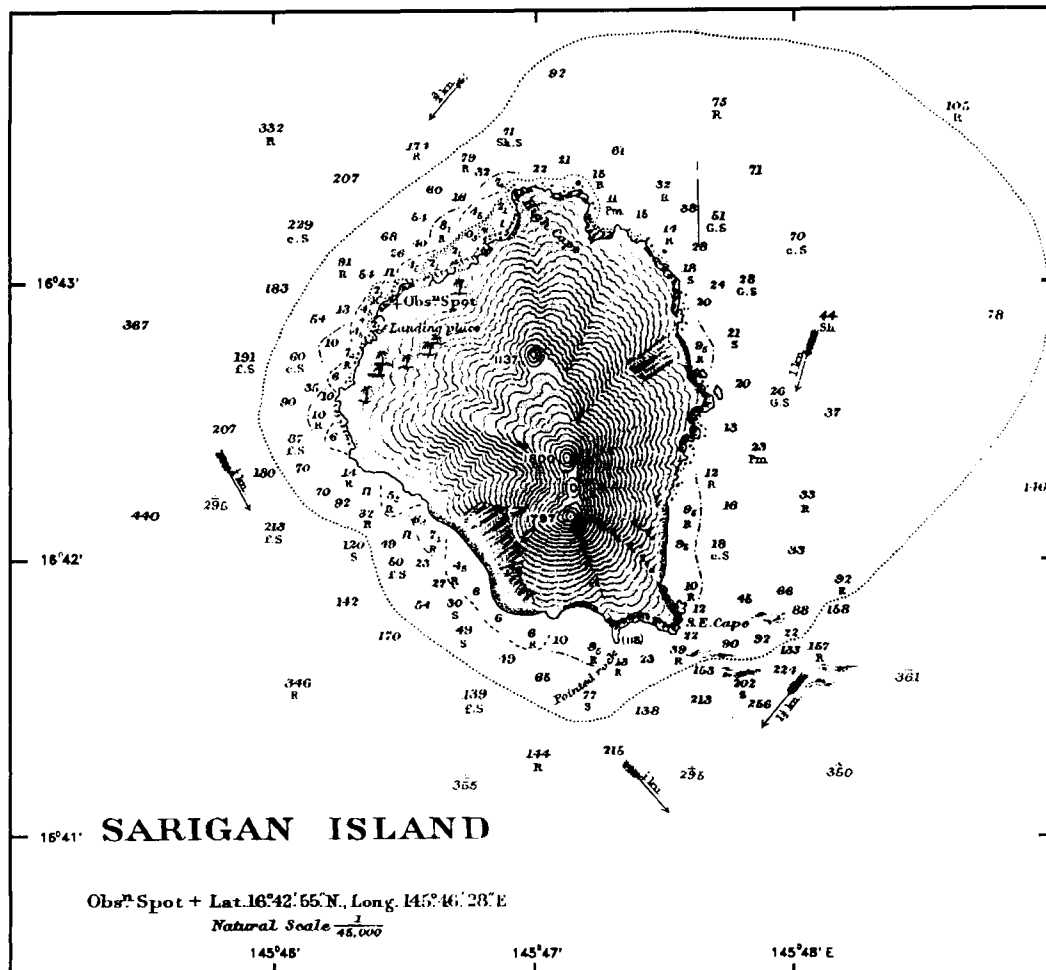
1 In his *Historia de la náutica*, section 76, e.g. see Vol. 77 of the Ribadaneira Collection (Biblioteca de autores españoles, Madrid, 1964; LC# PQ6171.A2B5).

in the tables given to him by order of the King. He arrived at Manila to give a report on his commission [as procurator-general] but, finding that the government and the business of those islands, when compared to 1605 when he had left, had changed so much, because of the invasions of the Dutch, that the Estates of the islands decided that Ríos should go once more to Spain to treat with the King and his councils whatever was proper for its remedy and prosperity. Although he was then an old man [of 77 years of age in 1616], was a priest, needed to rest and shrunk from the business aspect, the crowd of enemies infesting the seas and the hardships of such a long navigation, [however,] his love of the King, his zeal for the public good, his "torment at seeing mistakes being made" and his desire "to give a good example to so many people" were such that he accepted the task. He was to say later that this decision brought him more white hair than his advanced age, although he was no youth.

He returned to Spain in 1618, occupying his spare time during the navigation with the writing of a brief and a history of the Philippines, the reforms that were needed (see Doc. 1619B), the wealth to be found in them and in the Moluccas. This is a very appreciable document for our History, directed at the King, as well as very important for the government, in which "the truth was painted with total clarity, without the human considerations which usually contrive to hide it." This relation was printed at Madrid in 1622 [rather 1621] and at that time Ríos was consulted many times by order of the King and the Council of the Indies. He was asked to attend many of its meetings held to determine the route that the relief [fleet] to be sent to the Philippines should take, and his reports were much appreciated. In one of them he said that he had been navigating those seas for over 30 years, always learning more about nautical matters and making many globes and nautical charts, giving his opinion that the route to those islands should be by the Cape of Good Hope, contrary to the opinion of Dr. Cedillo who proposed that it should go by the Strait of Magellan. Ríos added that he urged them exceedingly to despatch this expedition.¹

We ignore the fate that affected this illustrious nautical man afterwards; doubtless, he finished his days in Spain where, as in the Philippines, he was distinguished for his knowledge as well as his virtue.

¹ This report was printed, without the year being mentioned; a copy was found in a tome marked Miscellaneous in the library of the Count of Gondomar, and it is now incorporated in the private library of the King, our lord. Ed. note: Probably still in the Biblioteca Real del Palacio in Madrid.



A2. Ordinary logbook of the voyage of 1611

Voyage made by the Licentiate de los Ríos from New Spain to the Philippines.

[fol. 107v] In the name of the Most Holy Trinity, and of Jesus, Mary and Joseph, we began our voyage from the port of Acapulco. The General was Don Fernando de Silva; his admiral was Captain Juan de Balmaceda. We set sail on Thursday 24 March of the year 1611 at 10:30 in the morning.

[Only nautical observations were made in this log until they sighted the Ladrones at the end of May].

On the 29th [of May 1611] in the morning, at 30 leagues to the W by N, we sighted the **Ladrones**. One of them [i.e. **Sarigan**] is high, and round, the top of the peak cut off; it would be 6 leagues in circumference. From there to the other island [Anatahan] which is aligned NNE—SSW with it, the distance is over 5 leagues; it is laid out NW—

SE over 4 leagues. And NE of the first island, another 12 leagues [fol. 112], there is also a small one [Guguan], and further to the NE another 6 leagues [another, Alamagan].

The first island is in 16° and $3/4$, because the sun's elevation was taken.¹ A few canoes of the Ladrones came out to us.

On this day in the afternoon, I marked the compass and the sun set at [an angle of] 16° and $1/2$ from due west toward the north, its amplitude was $22^{\circ}24'$, the difference being $6^{\circ}4'$ so that the compass was that much toward the NE.²

...

[They reached the Cape of Espiritu Santo on 10 June. The logbooks of Ríos for the voyages of 1605 and 1611 are also to be found in MN ms. 190; both were also copied by Fernandez de Navarrete in November 1790 for his *Colección de documentos*, Vol. 2, Doc. 8, folios 123 et sequitur].

1 Ed. note: The peak of Sarigan Island is indeed located at $16^{\circ}42'$ N. The other islands, being seen from afar, or only on the chart, are not well described. It is too bad that the author does not compare the inhabitants of Sarigan with those of Rota or Guam.

2 Ed. note: The so-called amplitude was probably read from a table for the date in question. The compass variation at Sarigan had changed to $1^{\circ}13'$ easterly in 1980, and was then increasing by $1'$ every year.