

# The rutter of 1610

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The transcript in Fernández de Navarrete (compiler) 1971, vol. 27, part 1, pp. 211-12, is of a letter Licenciado Fernando de los Rios wrote from Mexico in an undated letter, probably from December 1610 about the observations made from Seville to Cadiz where he was to embark. In that very short distance he made 4 observations.

The first observation was 8 leagues from Sevilla on the river below, at the inn of the Orcadas, and there the compass varied 4 degrees<sup>1</sup> going to the north-east. The second observation was in San Lucar [Sanlucar de Barrameda] in this stop the compass varied 2 leagues differing from the other two going to the same direction of the north-east.

The third observation was in the port of Santa Maria when they were on land and the compass turned to vary in the venta of the Orcadas whence the first observation had been made because it was on the same meridian.

Finally they made the fourth observation in Cadiz and there was a variation of 2 leagues, which was the same as it was in San Lucar, there being 2 leagues north and south in the other meridian. From Fernández de Navarrete (compiler) 1971

The reason for the delay in reporting, according to de los Ríos was the lack of a scribe, but it would also appear he was very reluctant to have to admit to the king that the inventions of Fonseca were useless as he was to say explicitly later.

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<sup>1</sup>In several places in the Fernndez transcription one finds 'leguas' where one would expect 'grados'. This is one such place. See also the book, p. 112, n. 21.

This rutter, which is here translated in full for the first time, is much more concerned with the compasses of Fonseca than with the journey, unlike the other three rutters of 1605, 1606 and 1611.<sup>2</sup> The ship left on 29 June from Cadiz and he was accompanied by Pilot Martín Franco and Capitán Santiago de Arrieta who was commander of the ship in which he travelled, which was the *Nuestra Señora de los Remedios*. During the voyage to Veracruz, where he arrived sometime after 8 August, de los Ríos made nine observations together with one on land in Veracruz. He was blunt, saying that the compasses showed nothing, though he did not dwell on the point.

Even before arriving in Veracruz he had written from Guadalupe<sup>3</sup> expressing his profound sadness that the compasses did not perform as they were supposed to.

It weighs heavily on me to give news to Your Majesty about the compasses. Your Majesty knows that there would be few things in this life that would give me more pain than has given me the result of no certainties. I have come making the observations with as much care as I could: namely to show the leagues for each degree. On the second day that we sailed the apparatus varied about 4 degrees, and later turning to the fixed, it made no more variation on the whole voyage. The one that was to show the longitude by degrees, like the one that Your Majesty used like the one that I used until the Canaries they came north-easting, that of Your Majesty and mine north-easting 8 degrees, and it is because the needles against us: having passed from there they turned back from 3 days to fix, and never more made variation. The vertical has been of no use. And I thought not to write to the Council until the voyage was completed, and I thought of using 2 Agujas again here or 3 and turn from here to Mexico to experiment, which has not managed to persuade me to this. God give me light to determine what for a thousand reasons I feel in my soul, since I would certainly reckon that if this secret were true at more than 50 thousand ducats. I ought not to ask God to give us this good because we do not merit it. Our Lord guard Your Majesty a thousand years. From Guadalupe 2 August 1610: Fernando de los Rios Coronel. = Señor Luis de Fonseca. (Fernández de Navarrete (compiler) 1971, vol. 27, part 1, p. 272.)

I do not want to lose any opportunity without doing this, although the brevity with which the Viceroy despatched this ship is so great that scarcely had I arrived in this city when it left and so I shall be brief. I only want to give an account to Your Majesty of the *Agujas de marear* of Fonseca, which always have resulted in nothing, and

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<sup>2</sup>I have found this rutter only in Fernández de Navarrete (compiler) 1971, vol.27, Part 1, pp. 287–292, though Fernández claims it is transcribed from the AGI.

<sup>3</sup>The island in the Lesser Antilles.

they are of no advantage, neither the *fixa*, which is one in which I had confidence because travelling 200 leagues from the Azores I say of the same meridian, also it varied like the ordinary ones and in Veracruz. I have not sent the observations on this ship because an attendant has not arrived who brings me linen and a scribe to transcribe them. And as the ship left so quickly it is not possible until the second advice. I wrote to the Council the substance of this, so that Your Majesty would see it and I do not refer to it: And I felt this in my soul, because it seems he would become very rich with the secret, which to be universal would be an incomparable treasure to correct navigation. Now only Doctor Arias lacks to know if it is better and more certain who is such a great mathematician he would not obtain it in a small distance. That of Fonseca appears to show what he proposed, but in appearance much of where the compasses are used they have no value, since all turn like the ordinary ones. My voyage was good, thanks to God, although if we delayed 8 days more we passed very badly, and although by chance the ship did not escape. Also I wrote about many problems<sup>4</sup> that I had noted on this voyage which is necessary to remedy. I remain healthy to serve Your Majesty and with much desire to be employed in Your service, to whom I beg you do not forget to order me if here something occurs in which I am of value. I kiss the hands of my lady Isabel many times and Our Lord guard your Majesty long and happy years. From Mexico 5 of October 1610 Fernando de los Rios Coronel. = To Pedro de Ledesma Secretary of Your Majesty. (Fernández de Navarrete (compiler) 1971, vol. 27, part 1, p. 273.)

He wrote two further letters from New Spain: one dated 31 December 1610 apparently from Mexico City which is quoted on p. 99 of the book, and another on, or perhaps more likely, before the same day de los Ríos wrote to the king giving his report on the testing on the voyage and fearing that the compasses of Fonseca were worthless. (The letter is dated simply ‘Mexico 1610’.)

May God give to Your Majesty the health that I wish. I did not want to give to Your Majesty ruinous news about the secret of the compasses, which needs must be resigned to the will of God. On the way to Santo Domingo I wrote to Your Majesty and gave you advice and now I turn to do this. The compasses which were varying one degree per degree of longitude, that which Your Majesty magnetized,<sup>5</sup> and which I magnetized came as far as the Canary Isles varying well. One to the north-west and the other to the north-east, because it varied as Your Majesty otherwise knows the needles. During 5 or 6 days when the compasses could not be marked with the

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<sup>4</sup>*yerro*s.

<sup>5</sup>‘Toco’, meaning stroked on the lodestone. See, e.g., O’Scanlan, compiler 1831, p. 17 under ‘Aguja’.

sun, although it was with the *fixa* and the variation did not stop from there as I wrote Your Majesty from Cadiz while we were there. From the meridian of Seville, it varied to the north-east one time, in the Orcadas 4 degrees and in San Lucar 4 and a half, and in Cadiz two degrees, but afterwards when we passed the meridian of Seville to the west it never had any variation at all in all the journey. The *fixas* passed a hundred leagues from the Islas de Cuervo, also they began to vary to the north-west and arriving at the port of Veracruz I took a meridian line to verify it well and test the *Agujas fixas* which I had brought and others that came on the voyage. Those that you gave us two years ago and all north-wested in the same way more than half a compass point more than the ordinary ones. I do not know what Licenciado Antonio Moreno had with them. The *aguja fixa* they found good as far as the Azores. Your Majesty will clarify if there is any remedy so that they are universal and otherwise they are worthless. I trust Your Majesty will be in blessed health and Your Majesty will remain the years I wish. From Mexico 1610 Fernando de los Rios Coronel = Señor Luis de Fonseca.<sup>6</sup>

## References

- Fernández de Navarrete (compiler), M. (1971). *Colección de documentos y manuscritos compilados por Martín Fernández de Navarrete*. Museo Naval Madrid, facsimile by Kraus-Thompson Organization Limited, Nedeln, Liechtenstein. 32 volumes in 39.
- O'Scanlan, compiler, T. (1831). *Diccionario marítimo español, que ademas de las definiciones de las voces con sus equivalentes en frances, ingles e italiano, contiene tres vocabularios de estos idiomas con las correspondencias castellanas, etc.* Madrid. Revised, before publication, by Manuel del Castillo. With a preface by Martín Fernández de Navarrete.

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<sup>6</sup>I do not know why Fonseca's name is here, but perhaps it means a copy was going to him. Since I have not found the original, I am relying on the transcript of Fernández Fernández de Navarrete (compiler) 1971.