taken in waters as shallow as 0.9 meters. So, it can be stated with certainty that the soundings taken off of Vissers Bank were not limited by the draft of the boat making the survey.

The rigid correlation between the low-tide coast and the soundings begs the question, which came first, the low-tide coast or the soundings that were supposed to produce a low-tide coast? It seems obvious from this peculiar array of bathymetric data that the ship making the soundings used the location of the low-tide coast, as depicted on the 2005 edition of NL 2218, as the signal to turnabout. Of course, establishing the low-tide coast prior to taking soundings means that the new position must have been pre-ordained by the charting authority, and a decision was made to avoid collecting any soundings that would refute the new location.

5) Soundings available on the 1969 edition of NL 2218 have been deleted from the 2005 edition of NL 2218

Most of the depths listed on the 2005 edition of NL 2218 appear to have been updated. These soundings have been extracted from the soundings data illustrated in **Figure 9**. It is odd, given the dramatic repositioning of Vissers Bank, that virtually all depth soundings that were present on this bank in 1969 have been deleted from the new version of NL 2218 without obtaining new soundings in this area. Three of the original soundings from 1969 remain on the near shore area of Vissers Bank and are highlighted in **Figure 9**, but all other soundings between the former low-tide coast and the newly established low-tide coast are conspicuously absent. Deleting this information, without new information to replace the old soundings, is inconsistent with sound cartographic practices. Without new soundings providing evidence of shallower water, there would be no basis for moving the low-tide coastline farther off shore.

6) New depth soundings shown on the 2005 edition of NL 2218 in the vicinity just north of Vissers Bank are <u>deeper</u> than those shown on the 1969 edition of NL 2218.

According to the 2005 edition of NL 2218, the depths in the area just north of Vissers Bank, beyond the new low-tide coast**,** indicate clearly that the water in this area is actually deeper than originally stated on the 1969 edition of NL 2218. **Figure 10** highlights the new soundings, and the increase in depths (in meters) from the 1969 data is listed in red next to the soundings. The average difference in sounding depths off Vissers Bank is 2.1 meters (or 6.9 feet). Given the proximity of these new soundings to Vissers Bank, it seems completely illogical that the low-tide coast would be moved seaward nearly 4 kilometers *into deeper waters*, well beyond the previously established low-tide coast.

With water depths increasing, the low-tide coast would be expected to retreat in this area, rather than advance. Without new depth soundings for Vissers Bank, and without satellite imagery indicating uncovering shoals in the general vicinity, the movement of the low-tide coast seaward is unsupportable by any available data.

Conclusions:

After reviewing the 2005 edition of NL 2218, along with other relevant nautical charting and satellite imagery, there is, in my opinion, no plausible explanation for the revised placement of the low-tide shoreline in the vicinity of Vissers Bank. The absence of supporting data from earlier charts and the lack of soundings to support the new location of the low-tide coast lead to one conclusion; the position of the low-tide coast on the 2005 edition of NL 2218 cannot be accurate. While it is impossible to know exactly where the low-tide coast would be positioned without direct access to a satellite image taken precisely at a low-tide interval, or a thorough set of depth soundings in the maritime area in question, it is safe to say that it is not where it has been depicted on the 2005 edition. The position of the low-tide coast on this new chart is several kilometers north of where the cartographic evidence would reasonably place it.

The SPOT imagery referred to in this report does, however, support the low-tide coast as it has been portrayed on the 1969 edition of NL 2218, as well as the other smaller scale Dutch nautical charts, namely NL 2014 and 2017. This imagery also supports the low-tide coast as depicted on NIMA 24370.

In view of the facts before me, I am confident that the low-tide coast portrayed on the 2005 edition of NL 2218, in the general vicinity of Vissers Bank shown on **Figure 1,** is located at least 3-4 kilometers north of its correct position.

1969 Edition of NL 2218 superimposed onto the 2005 Edition of NL 2218

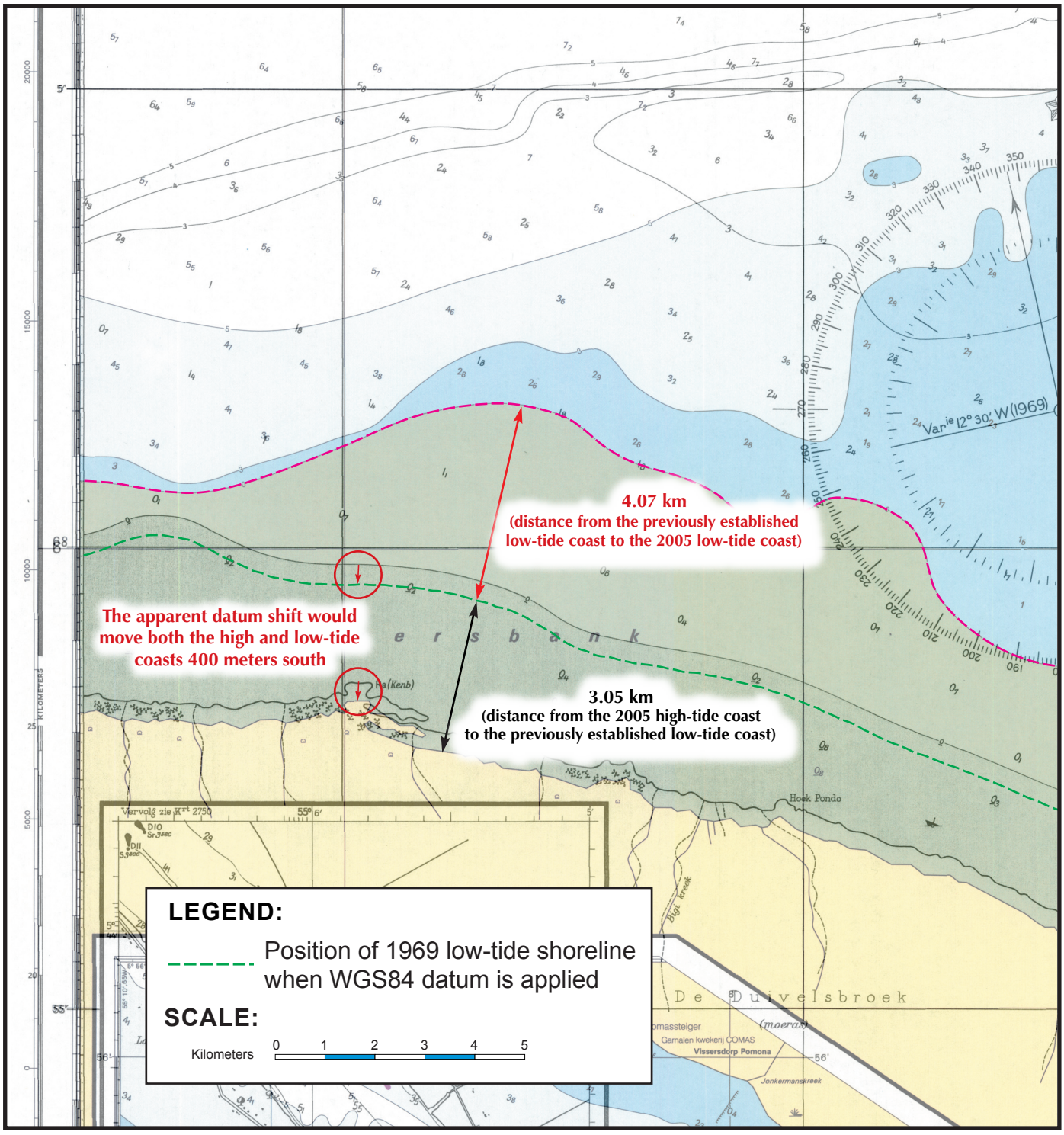

Figure 2