

*More Ways*  
 For the same Purpose, Intimated by M.  
 Hook.

**I** Have by me (saith Mr. H.) two or three several ways of Measuring the Diameters of the Planets, whether *Horizontal*, *Perpendicular*, or *Inclined*, to the exactness of a *Second*, by the help of a *Telescope*: As also, of taking the Position and Distance of the *Small Fixt Stars* one from another, or from any of the less bright *Planets*, if the Distance be not above two or three *Degrees*.

*The Particulars hereof, the Author refers to the next Opportunity.*

*Observations*  
 Of the Star, called *Nebulosa*, in the Girdle of  
*Andromeda*; and of the *Wondrous Star* in  
 the Neck of the *Whale*: made and com-  
 municated by *Monsieur Bullialdus*.

**A** *Nno 1667*. in *January*, when the *Cloudy and Misty* weather, which had continued for a good while, did permit us to observe, the *Star Nebulosa*, in the *Girdle of Andromeda* (which may well enough be seen by the bare Eye) appeared much obscurer than the Year before. In the Months of *February* and *March* I did not see it.

*Anno 1667, January 20*. at Night, *h. 6. 30*. the Sky being pretty serene, the *Star in the Neck of the Whale*, did approach to the bigness of a *Star of the Sixth Magnitude*, and grew bigger afterwards.

*February 12, h. 6. 30'*. I saw the same again, equalling now a *Star of the Fourth Magnitude* at least.

*February 24, h. 7*. This *Star* was equal to those of the *Third Magnitude*, shining very bright.

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*February*

February 26, The same appeared yet to increase; as also February 27. But after this time I could not see it, by reason of the ill weather.

The same Astronomer did subjoin the following Extract of a Letter he received from Monsieur Hevelius, March 15. 1667. concerning such another Star; viz.

I have watched the *New Star* in the Neck of the *Whale*, as often as the weather would give me leave, which it hath done but seldom this Winter. In *January*, the 3, 4, 5, 7, and 13 dayes, it did not yet appear. From this time, the Sky was continually overcast, till *January* 23. on which day, I found a little Star of the *Sixth* or *Seventh Magnitude*, about the same place where the said *New Star* uses to appear. But it then seemed to me not the genuine *New Star*, but another, to wit, preceding the *New*; whose *Longitude* hath been defined by me in *Mercurius in Sole visus in Aries*. gr. 25. 43'. 3". and the *Latitude* gr. 14. 41'. 32". South, Anno 1660. Then from *January* 23, to *February* 2, it was Cloudy weather again; but this *second* of *February*, it appear'd very bright, and that when the Moon shone, of the bigness of that in the *Mouth of the Whale*, or *Nodo Lini*: from which time I alwayes observed it to grow bigger. *March* 13. I did still find it extreamly bright, but could not by my naked Eye, because of the vivid *Crepuscle*, and the low site of the Star, accurately determine its Magnitude.

I have received (saith he further) your two *Monita ad Astronomos*; and the *Discourse* hath much pleased me, you having not much deviated from the Truth, in respect of the Appearance. Heretofore I had of this, and other *New Stars*, another *Hypothesis*; but I cannot thereby so accurately divine the Appearances, as you will read more largely in its due place.

See Numbr. 22. of these Transactions, p. 381, 382. where an account is given of these two *Monita* of M. Bullialdus.