explanation is correct. A nominal second stage burn lasts a little under 4 minutes. Ironically, although its launch was detected visually by astronomers, the mission of Cosmos 2176 is to detect the launch of missiles towards the CIS in the infrared!

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On the "Unidentified Object Over Chile"

In a recent article (*The Messenger* **67**, p. 56–57), O. Hainaut proposes a re-entering satellite or rocket as explanation for the observations of the unidentified object over La Silla on 24.1.92 at 2.15 to 2.21 UT.

A preliminary analysis of the information on satellite launches and decays for the period 23./24.1.92 was performed by H. Köhnke, Satellite Station Stade, and myself in order to confirm or disprove this hypothesis.

Satellite decays*: according to information published in *Spacewarn Bulletin*, the following satellites decayed on 23./24.1.92:

Object	Description	Decay
1986-19-CX	Part of Ariane Launcher	23.1.92
1991-51-A	Microsat 1	23.1.92
1991-51-B	Microsat 2	23.1.92
1991-51-D	Microsat 4	23.1.92
1991-51-G	Microsat 7	23.1.92
1991-51-C	Microsat 3	24.1.92
1991-51-E	Microsat 5	24.1.92
1992-1-B	Rocket Cosmos 2175	24.1.92

Orbit calculations of the Microsats and of Rocket Cosmos 2175 show that none of these objects can be considered a potential candidate to explain the observations of the unidentified object over Chile. For the Ariane launcher part, no orbital elements were available for our calculations.

Satellite launches: according to the RAE tables of Earth Satellites the only launch of interest for the UFO observations is that of Cosmos 2176 on 24.1.92 at 1.12 UT. The orbit inclination of this launch was about 63 deg which points towards the Plesetsk Space Centre (near Archangelsk) as launch site. With this assumption an observability over Chile resulted on 24.1.92 between 2.15 to 2.20 UT for re-entering parts of the Cosmos 2176 launch. The scenario of the re-entry of a rocket launched from the Baikonur Space Centre as proposed by O. Hainaut can be ruled out for two reasons: no parts from the Cosmos 2176 launch would pass over La Silla during the first orbit revolution when launched from Baikonur and most Russian high-inclination launches (i.e. those above 60 deg) are made from Plesetsk.

In summary: The UFO observed on 24.1.92 2.15–2.21 UT over La Silla could have been a part from the Cosmos 2176 launch. However, further investigations are needed to verify this explanation (launch site of Cosmos 2176). In this context, a more detailed description of the UFO trajectory over La Silla or other places in Chile would be very helpful for a positive identification of the Cosmos 2176 launch as origin for the UFO. The decay of a space debris (like 1986-19-CX or others not given in the NORAD catalogues) cannot be ruled out as possible explanation.

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* The decay and orbit information was kindly provided by ESOC Darmstadt.

First Images with IRAC2

ESO's new infrared camera equipped with a 256×256 Rockwell NICMOS 3 array (see *The Messenger*, **67**, 21) was tested on the 2.2-m telescope for the first time during the second half of May. Although the weather was generally poor, a large number of images of a variety of objects were nevertheless obtained and are now being reduced to assess the performance achievable in the various modes. Amongst the first of these are the accompanying images of the A1689 galaxy cluster at z=0.2 and the supernova remnant RCW 103. It is planned to include a more detailed report in the next issue of the *Messenger*.

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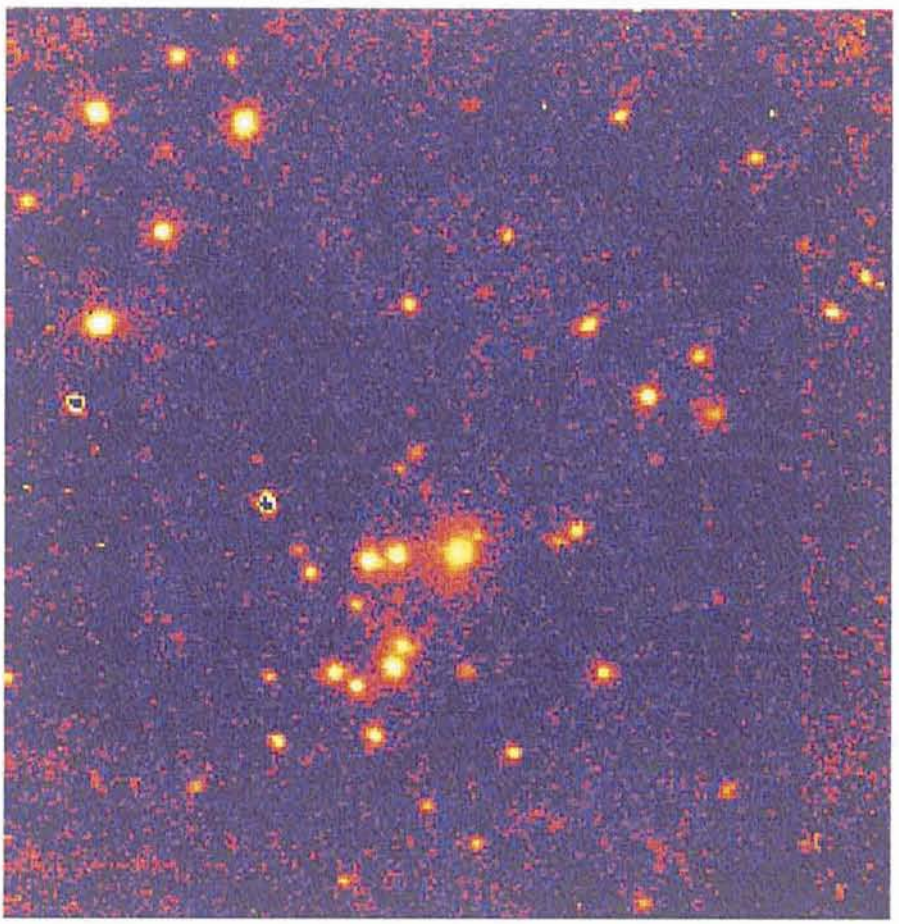

Figure 1: *K' (2.1 μm) image of the galaxy cluster A1689 (z=0.2) obtained with IRAC2 at the 2.2-m telescope on La Silla. The scale is 0.49"/pixel and the field is ~2×2' with N at the top and E to the left. This image was constructed from ten 2-minute exposures made at different positions shifted by ~15" on the sky to enable accurate sky subtraction and removal of bad pixels and has been flat fielded using measurements of the illuminated diffusing screen in the dome. The galaxies have integrated magnitudes in the range K' = 13.5–19 and the r.m.s. noise corresponds to ~21 mag (arcsec)^2. (Image processing: Reynier Peletier).*