The late Edward Hacker of Huntsville AL was a manufacturer of philatelic cachets under the name “Centennial Covers”. His colorful and informative cachets, many of which were for space-related events, are appealing to many space cover collectors. His cachets were produced as a labor of love due to the time consuming and individual attention to each envelope created using the raised printing technique process. The raised printing method involves a 3-step process to obtain glossy thick cachets for each individual envelope. The design is first printed on an old-fashioned printing press with a slow drying ink. While that ink is still wet, a powdered ink is then poured onto it to cover the entire cachet design. The powdered ink sticks only to the wet ink design and the excess powdered ink is poured off for re-use. The last step is to place the envelope under a heat lamp to melt the powdered ink, which solidifies after the heat source is removed.

Relatively little is known about the production history of Centennial Covers cachets. This article refers to a recently-completed online list of Centennial Covers cachets for unmanned satellites and for scientific research rockets, which are topics of particular interest for the first two authors. There is no guarantee that all the covers presented in this article and in our online checklist have Centennial Covers cachets, but our analysis leads us to be reasonably confident in attributing them to Ed Hacker.

What is known is that Hacker produced Centennial Covers cachets from the early 1960s through the mid-1980s. He discontinued most Centennial Covers cachet work in 1984, selling his entire cover stock to Barrett and Worthen in Lexington MA, but the status of those covers is unknown. Hacker, however, continued to make cachets for FDCs and for Space Shuttle events, but not in the quantity of previous Centennial Covers cachets.

Examples of Centennial cachets on Satellite Launch Covers

Centennial Covers cachets, like those of other manufacturers, can be identified to some level of certainty by their characteristics of design and style, most notably by the raised printing technique which is applied as a secondary step in the printing process and adds thickness to the printing. Most Centennial Covers cachets contain a graphic, usually of single color, plus some informative text in a relatively large font which directly identifies the satellite launch. Different fonts are used for different parts of the text, and most often the text is black. The following two examples are from the beginning (1962) and end (1984) of the period of Centennial covers for unmanned satellites, those not associated with the Space Shuttle. As mentioned above, from 1984 through 1986, Centennial dealt mainly with Space Shuttle covers, for which the authors’
list contains only the ones associated with un-manned satellites, as we do not keep track of all Centennial Shuttle-related covers.

The oldest Centennial Covers cachet in the authors’ un-manned satellite collection, for the launch of Mariner-2 in 1962.

The most recent non-Shuttle Centennial Covers cachet in the authors’ un-manned satellite collection, for the launch of NATO-3D in 1984. Many other Centennial Covers, between the starting and ending ones just shown, can be found on the authors’ website noted at the end of this article.

Centennial Covers also employed some “generic” cachet graphics for a few launches. Those cachets used common graphics, but with differing text, as seen in the examples that follow.

A Centennial Covers cachet for the launch of Syncom-1 in 1963, but the dark blue graphic depicts several other satellites (clockwise from upper-left): Relay, a tiny unknown satellite, Vanguard-2, a tiny Pioneer-3/4, Explorer-1, TIROS/ESSA, and an unknown rocket body. This graphic, also available in gray, orange, and yellow, was used for the launches of Relay-2, Explorer-26, ATS-3, Pioneer-E (failed), NATO-2B, and possibly others that are unknown to the authors, as well as on a FDC for USA C76 for the first moon landing in 1969.

A Centennial Covers cachet for the launch of Explorer-S66 in 1964, but the black graphic depicts other satellites (clockwise from upper-left): Vanguard-2, a tiny unknown satellite, Pioneer-5 or Explorer-6 (they look alike), and Pioneer-3/4. This graphic, also available in green, orange, and red, was used for the launches of Explorer-30, Pioneer-7, IDCSP-16/19, OV5-8, Explorer-41, DMSP-5B-F2, and possibly others that are unknown to the authors.

A Centennial Covers cachet for the launch of GEOS-2 (Explorer-36) in 1968, but the brown graphic depicts other satellites (clockwise from middle-left): TIROS-ESSA, Transit-2A, Pioneer-5 or Explorer-6 (they
look alike), two unknown satellites/spacecraft, and Vanguard-2. The graphic, also available in gray and red, was used for the launches of OSO-5, Nimbus-3, HEOS-2, and possibly others that are unknown to the authors.

A Centennial Covers cachet for the launch of OSO-4 in 1967, but the black graphic depicts three different “Orbiting Observatories” (clockwise from lower-left): OGO-1/6, OAO-2, and OSO-1/6. The graphic, also available in red and yellow, was used for the launches of OGO-5, OAO-2, and possibly other Orbiting Observatory launches that are unknown to the authors. In this cachet an arrow in the middle-right points up to the OSO-1/6 drawing, corresponding to the OSO satellite featured. On the similar-design OGO-5 cover, an arrow in the bottom-middle points left to the OGO-1/6 drawing; there is no corresponding arrow on the OAO-2 cover (scans of those covers can be found online).

Next, one of the few un-manned satellite items on which the cachet maker is specifically noted in text as “Centennial Covers” is presented. Occurrences of this text identification are rare among the many Centennial cachets known to the authors, with the only other un-manned items being for the launch of Palapa-A2, also in 1977. For completeness, a few other covers with “Centennial Covers” in text, ones that are not in the authors’ areas of interest, are linked to a footnote at the bottom of our Centennial Covers webpage (found via the link included at the end of this article).

A Centennial Covers cachet for the launch of HEAO-1 in 1977, with the highly-unusual attestation “Centennial Covers” below the image.

Examples of Centennial cachets on Space Shuttle satellite-deployment covers

As mentioned earlier, Centennial went on to produce Space Shuttle-related covers exclusively after selling its existing cover stock in 1984. A number of those covers are included in the authors’ webpage because they feature un-manned satellite deployments. Only one example is shown here. It has a cachet design that was used for the deployment of each of the three satellites carried on the STS-51I mission in 1985. Like the OSO-4 cover already shown, this Centennial Covers cachet uses an arrow to point to the satellite of interest, in this
case the Aussat-1 communications satellite. Each of the three satellite names is connected by a line to the location of that satellite in Discovery’s cargo bay. Similar cachets in other colors and with appropriate arrows were used for the other two satellites that were deployed during this Space Shuttle mission. These detailed and informative Centennial cachets are a delight compared to many other cachets for these satellite deployments that contain less detail and in some cases may even present misleading information.

A Centennial Covers cachet with a red graphic for the deployment of the Aussat-1 communications satellite from the Shuttle Discovery in 1985. The graphic, also available in blue and yellow, was also used for the deployments of ASC-1 and Syncom-4-4 (Leasat-F4), with appropriate cancel dates. In each cachet an arrow in the upper-left points to the name of the featured satellite, which is in turn connected by a line to its location in the cargo bay (scans of those covers can be found online).

Summary
While only a few examples of Centennial Covers cachets have been presented in this article, we believe it provides readers with a representative sample of typical Centennial Covers cachets for un-manned satellite launches. Many more examples are available in the authors’ online checklist of Centennial Covers cachets (link provided below).

Acknowledgements
Additional background information on Edward Hacker and Centennial cachets was supplied by Stephen Garner, whose website http://www.angelfire.com/journal/disneylicenseplates/CC/CC_Index.html focuses on Centennial Covers for Space Shuttle events. The authors are looking for other collectors who can help improve our online checklist by filling in any missing Centennial Covers cachets items.

Additional online information
A checklist with scans of (around 350) Centennial Covers cachets on un-manned satellite (or scientific rocket) launch covers, dating from 1962 to 1984, is available at http://rammb.cira.colostate.edu/dev/hillger/Centennial_Covers.htm. In addition, Centennial Space Shuttle-related un-manned satellite deployment covers from 1984 through 1986 are included in that page. The authors would like to hear from anyone who knows of additional Centennial Covers items that have been missed. We welcome email correspondence at the addresses on the next page.
Biographical notes

The first two authors have researched and written extensively on the subjects of weather, climate, and un-manned satellites on stamps and covers, as well as other topics. For a complete list and electronic reproductions of those publications, see http://rammb.cira.colostate.edu/dev/hillger/stamp-articles.htm.

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Helios Is a solar probe built by West Germany was launched on December 10, 1974 from Pad-41 aboard Titan-Centaur #2 the first operational launch of the Titan-Centaur launch vehicle. The Helios-1 launch cover shown was autographed by U.S Program Manager, Fred Kochendorfer and U.S. Program manager, Albert Opp and was one of only 1400 covers to receive the black NASA rubber stamp.