

Preparing for the epic adventures of BepiColombo

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Abstract

The joint European Space Agency (ESA) and Japan Aerospace Exploration Agency (JAXA)'s BepiColombo mission to Mercury is almost ready for launch, and the outreach and communications efforts to raise awareness about the project are gearing up. The social media landscape is very different now to what it was at the time of Rosetta's launch in 2004 for example, when popular social media channels such as Facebook and Twitter were only just conceived; today we have the opportunity to engage with different audiences on a vast range of platforms from the early stages of a mission. We draw on the experiences of our Rosetta communications campaign between 2013 and 2016 [1] to help shape our outreach activities for BepiColombo. This includes the introduction of a new cartoon series and first person Twitter accounts for the three spacecraft that comprise the mission, alongside traditional media relations and event organisation.

1. Mission profile

The BepiColombo mission is Europe's first mission to Mercury, the smallest and least explored terrestrial planet in our Solar System. It consists of two scientific orbiters: ESA's Mercury Planetary Orbiter (MPO) and JAXA's Mercury Magnetospheric Orbiter (MMO), and ESA's Mercury Transfer Module (MTM). The three spacecraft will launch together on an Ariane 5 from Europe's Spaceport in Kourou in late 2018 and voyage to Mercury as a single composite spacecraft, with the MTM providing power and propulsion. It will use the gravity of Earth, Venus and Mercury in a total of nine flybys, in combination with the thrust provided by electric propulsion, to reach Mercury orbit at the end of 2025. When approaching Mercury, the MTM will separate and the two science orbiters, still together, will be captured into a polar orbit around the planet, before separating and entering into their own respective orbits.

BepiColombo is set to build on the achievements of NASA's Messenger mission (completed in 2015), in order to provide the best understanding of the Solar

System's innermost planet to date. The technology preparations needed to fly to and operate at Mercury, the science that will be performed once at the planet, and the journey itself provide talking points and opportunities for public engagements along the way.

1.1 Preparing our audience for launch

We have followed the construction and testing of the mission through our traditional channels [2], and hosted a media event in July 2017 at ESA's technical centre in the Netherlands to present the completed spacecraft stack (figure 1), allowing journalists to 'meet' the spacecraft – the last time this would be possible in Europe. In March/April 2018 we started ramping up our communications activities in preparation for the shipment of the spacecraft modules to Kourou in late April/early May, marking the start of six months of launch preparations. This included the release of traditional artist impressions of the spacecraft and video footage of the packing activities, and the launch of the cartoon [3] and three new Twitter accounts: @ESA_Bepi, @ESA_MTM and @JAXA_MMO (the latter is managed by JAXA). We have also produced a simple 'print-and-play' memory game to familiarise our younger audience with the mission and its long journey. After a successful launch we intend to release an interactive tool where users can find out where the spacecraft is on its way to Mercury.



Figure 1: Completed spacecraft stack, July 2017. Top: MMO, Middle: MPO, Bottom: MTM.

2. New friends, new adventures

Following the success of the “Once upon a time” cartoon series that told the story of Rosetta and Philae’s escapades at Comet 67P/Churyumov Gerasimenko [4], we have embarked on “The Epic Adventures of BepiColombo”. This is again a close partnership between ESA on the script-writing side and Design & Data [5] on the visualisation and production side. As with Rosetta and Philae, the BepiColombo characters provide an obvious opportunity for a dialogue – this time with two science orbiters and one transport ‘robot’, giving a different dimension to the story telling.

2.1 Twitter personalities

The first person Twitter account of @ESA_Rosetta captured a wide audience with its endearing conversations with @Philae2014 [6]. Therefore, we have chosen to personify the three BepiColombo characters on Twitter, which again take the visual identity of the cartoon characters. The personified accounts complement the more traditional voice of the existing @bepicolombo account. The @ESA_Bepi account is a key storyteller in the English language, complemented by the Japanese/English-speaking @JAXA_MMO account. The ESA-JAXA partnership offers a unique opportunity for cultural exchange, which will be portrayed through the two characters as their journey progresses. Meanwhile the MTM character, pitched rather as a robot, only speaks Emoji – picture icons with drive from Japanese – the first time a space agency account is presented in this way and although somewhat lighthearted, is very much in keeping with the global emoji phenomenon. [7].

The accounts follow the real-time mission activities as closely as possible, which in recent months has covered the preparation activities in the Spaceport, building excitement and momentum as they prepare for their journey to Mercury. They utilise materials posted on ESA’s traditional channels to populate their timelines, and it is the aim to post complementary multi-media material on each account to give variety and maintain interest.

3. Existing audiences

We will prioritise our communications on the main ESA web portal, esa.int/bepicolombo, and through the social media channels, rather than host a

dedicated blog, for example. Similarly, for Facebook, Instagram, and YouTube, ESA’s other primary social media accounts alongside Twitter, we use the existing audiences of these accounts to highlight key announcements and messages. The mission will also be covered by ESA TV and ESA Web TV at key moments, and media events will be organised around certain milestones, such as launch.

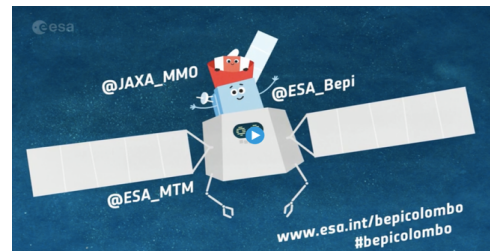


Figure 2: BepiColombo cartoon characters

4. Summary and future outlook

The Rosetta mission allowed us to explore various new methods of communications for the first time – such as the use of a cartoon to communicate important milestones and scientific results, and the complementary first-person Twitter accounts. This shaped our decision to pursue these activities again for telling the story of our BepiColombo mission in the current communications landscape. The seven year journey to Mercury, augmented by nine flybys, gives plenty of talking points and opportunities for engagement activities in the future. We will present a more detailed overview of our activities in the planning around launch, as well as our ideas for the future.

References

- [1] Bauer. M et al. The Strategy and Implementation of the Rosetta Communication Campaign, CAPj, 19, 2016
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