
**PROPOSED SPACE FLIGHT TRIALS COMPETITION AT MACHRIHANISH
AIRBASE COMMUNITY COMPANY – REQUEST FOR FUNDING**

1.0 EXECUTIVE SUMMARY

- 1.1 The purpose of this paper is to inform the Policy and Resources Committee of a request for funding made by the Machrihanish Airbase Community Company Ltd (MACC).
- 1.2 The funding is requested to support a new initiative – “Mach-21; National Spaceflight Education Conference and CanSat Competition”, a three day event, to be held annually from July 2021 (**Appendix 1**). The total amount of funding required for this event is **£147,350**. It is anticipated that MACC working with a private company will provide 50% of this balance. However, there is currently a funding shortfall of **£73,970**. A request for **50%** of this shortfall is recommended from the council to move to the second stage of approval matched with funds provided by Highlands and Islands Enterprise (HIE). The remaining **50%** will be made up by **£10,000** from Development and Economic Growth budgets and a one off request for funding of **£26,985** from the Rural Resettlement Fund, used for supporting small and medium sized companies with growth potential. These funds will support initial infrastructure requirements, which will be used on an annual basis. The funding request is consequently for 2021 only, to be used for non-recurring equipment costs such as workshop materials and fit out. The subsequent annual events will re-use the equipment purchased for the initial event. The balance remaining in the Rural Resettlement Fund currently stands at £151,733.
- 1.3 Argyll and Bute Council has previously supported the ambitions for a spaceport at MACC and has funded several events and studies to this end, significantly helping to raise the profile of the base. This current request for funding comes on the back of a recommendation from a recent consultation by UK Launch Services Limited (UKSL) which was paid for by the UK Space Agency (UKSA). The main impact of this new initiative would be to create a facility capable of rocket launch at the MACC base which would effectively be phase 1 of a 3 phase project to establish MACC base as a spaceport specialising in small scale payload launches via small scale rockets, engine testing and as a base for rigid derigables and sub-space flight testing. The idea of the competition is to prove MACC’s suitability as a launch point and enable UK based universities to undertake annual competitions. This would be an alternative to USA competitions that are currently suspended and unlikely to resume.

- 1.4 The sponsorship would be a continuation of our partnership and also send a strong and clear signal that we are open for innovation and the use of new technology in our area and would also pave the way for further collaboration with MACC, HIE and the private sector.

2.0 RECOMMENDATIONS

- 2.1 Members are asked to note the content of this paper and the future economic possibilities for the Kintyre area.
- 2.2 That the committee recommend the funding request for **£26,985** from the Rural Resettlement Fund to the Council as its contribution to this event.

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3.0 INTRODUCTION

- 3.1 This request for funding has been made following a recent consultation by UKLSL on behalf of MACC and funded by the UKSA. The Mach event “Mach-21; National Spaceflight Education Conference and CanSat Competition” is a three day event (**Appendix 1**) to be held annually from July 2021 will bring undergraduates from multiple UK universities and beyond to a spaceport setting, where they will participate in a world class rocket testing event from a unique facility.
- 3.2 The event will be delivered through a partnership between MACC and UKLSL a private company with expertise in the Space Industry and will see student groups design and build CanSats (i.e. Can Satellites - a simulation of a real satellite, integrated within the volume and shape of a soft drink can), then launch them from the airbase, providing an event of similar scale to those undertaken in the United States ([link](#)).
- 3.3 The funding is requested to support this new initiative – “Mach-21; National Spaceflight Education Conference and CanSat Competition”, a three day event, to be held annually from July 2021 (**Appendix 1**). The total amount of funding required for this event is **£147,350** with a private company and MACC providing 50% of funding. However, there is a funding shortfall of **£73,970**. A request for **50%** of this shortfall (**£36,985**) has been recommended to move to the second stage of approval with Highlands and Islands Enterprise (HIE). The remaining **50%** will be made up by **£10,000** from Development and Economic Growth budgets and a one off request for funding of **£26,985** from the Rural Resettlement Fund. This fund is used for supporting small and medium sized companies such as MACC with growth potential in key sectors. These funds will support initial infrastructure requirements, which will then be available on an ongoing basis. The funding request is for 2021 only, to be used for non-recurring equipment costs such as workshop materials and fit out. The subsequent annual events will re-use the equipment purchased for the initial event. The balance remaining in the Rural Resettlement Fund currently stands at £151,733.
- 3.4 The main impact of this new initiative would be to create a facility capable of rocket launch at the MACC base which would effectively be

phase 1 of a 3 phase project to establish MACC base as a spaceport specialising in small scale payload launches via small scale rockets, engine testing and as a base for rigid derigables and sub-space flight testing. The idea of the competition is to prove MACC's suitability as a launch point on the Scottish mainland and enable UK based universities to undertake annual competitions in rocket launching. This would be an alternative to USA competitions that are currently suspended and unlikely to resume. Assurances have been provided by MACC that the competition can operate safely during the period of the pandemic.

4.0 RECOMMENDATIONS

- 4.1 Members are asked to note the content of this paper and the future economic possibilities for the Kintyre area.
- 4.2 That the committee recommend the funding request for **£26,985** from the Rural Resettlement Fund to the Council as its contribution to this event.

5.0 DETAIL

- 5.1 Argyll and Bute Council has supported MACC's ambitions to become a UK spaceport as a member of Discover Space UK (DSUK) since 2015. It supported an event, held in the Palace of Westminster in January 2017 and part funded a feasibility study carried out by Capital Ambassadors Ltd (£40,000).
- 5.2 The UKSA has been in discussion with all possible sites for a spaceport in the UK. Each of which has unique potential for either vertical or horizontal launch. The UKSA has made it clear that it is not a race to become the only option for siting a spaceport in the UK but it prefers a "Cluster" approach, where several businesses and spaceport come together for a specific purpose. MACC has recently signed such an agreement with Prestwick Airport and the Medicines Manufacturing Innovation Centre (a new £56m facility based in Renfrewshire). This Cluster of business and locations will seek to explore possibilities for the development of medical solutions in microgravity (Exomedicine).
- 5.3 The proposed CanSat event provides a timely opportunity to raise the profile of South Kintyre and Argyll and Bute in attracting membership of such clusters. Helping to develop a highly skilled industry in one of our hardest hit communities due to business closures prior to the current pandemic. The funding request is for 2021 only, to be used for non-recurring equipment costs such as workshop materials and fit out. The subsequent events will re-use the equipment purchased for the initial event.
- 5.4 The proposed event will help to position MACC base for low level space related flight and demonstrate the capabilities of the site for testing by:

- Providing an opportunity for universities to launch CanSats and sounding rockets up to 10km;
 - Offering a unique opportunity for students to have a first practical experience of a real space project by designing the CanSat, selecting its mission, integrating the components, testing, preparing for launch and then analysing the data.
 - Encouraging the local community to take part via school workshops and attendance at the event;
 - Providing workshops and opportunities to speak to industry representatives; and
 - Bringing visitors to Argyll and Bute, particularly those involved in STEM Further and Higher Education.
- 5.5 The Mach event aims to further develop opportunities by building on a growing recognition of the facilities and capacity of the MACC base to house high profile events such as this. It is also hoped that the event will also help attract further investment that will allow for new opportunities for Argyll and Bute within the rapidly expanding UK space industry that is continuing to expand across Scotland and the UK.

6.0 CONCLUSION

- 6.1 The space industry is rapidly expanding in the UK. Raising the profile of the MACC base as a real and unique mainland Spaceport possibility in Argyll and Bute is a significant opportunity that requires continuous promotional work and networking. The CanSat event will invite participants from many of the UKs highest profile universities to test rockets at this unique UK event. As part of the 3 day competition there will be a space fayre, based in the Spaceflight Centre on the base. This will include, for example, representatives from the space, medical, engineering and technology sectors which has the potential to inspire younger people of Argyll and Bute to learn more about the expanding space industry in the UK.
- 6.2 As noted earlier in this report the funding request is for 2021 only, to be used for non-recurring equipment costs such as workshop materials and fit out at MACC. Other costs are covered by UKSL, HIE, MACC and industry sponsorship for specific items such as propellant costs. This initiative represents the next stage in the process of the partnership between MACC, HIE and the Council to establish MACC as a UK Spaceport through demonstrating the suitability of the base to launch rockets and also as a region interested in developing new technologies, innovation and learning.

7.0 IMPLICATIONS

- 7.1 **Policy** - This will support the key aims of outcomes 1, 2 & 3 of the Local Outcome Improvement Plan, together with the Economic Strategy.
- 7.2 **Financial** - There is a request for funding of £26,985 from the Rural Resettlement Fund earmarking. An additional sum of £10k will be made available through Economic Growth budget.
- The balance remaining in the Rural Resettlement Fund currently stands at £151,733.
- 7.3 **Legal** - None
- 7.4 **HR** - None
- 7.5 **Fairer Scotland Duty:**
- 7.5.1 **Equalities - protected characteristics:** - All activities will comply with all Equal Opportunities.
- 7.5.2 **Socio-economic Duty:** - The event will assist with removing socio-economic disadvantage through putting South Kintyre on the map and by working with local schools and colleges.
- 7.5.3 **Islands:** - None
- 7.6 **Risk** - There is a risk that the event will attract insufficient numbers of participants to make it viable.
- 7.7 **Customer Service** - None

**Executive Director with responsibility for Development and Economic Growth
– Kirsty Flanagan**

Policy Lead Cllr Robin Currie

October 2020

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Appendix 1 Mach-21 v2