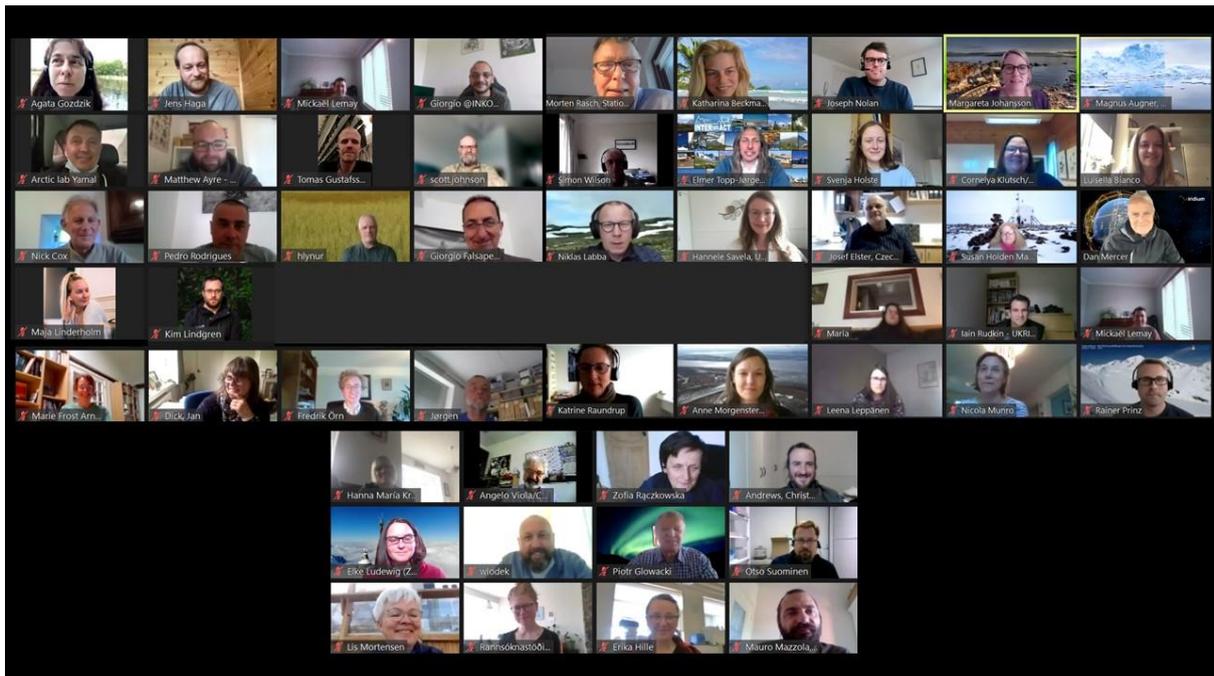


Minutes

General Assembly

Online meeting 26 May 2021



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Summary

INTERACT held its first of two General Assemblies in 2021 online. 72 people from 15 countries joined the meeting. It consisted of work package presentations and discussions on how the work packages can collaborate and benefit from each other. All presentations can be found and downloaded from [the INTERACT website](#).

1. Work package presentations

1.1 WP 1 Project Coordination

Margareta Johansson

The main objectives of this Work Package are to facilitate and ensure 1) the smooth operation of the consortium, 2) the integration of the various work packages to achieve synergy, 3) the successful and timely completion of the agreed tasks and 4) the achievement of significant advances in beyond state-of-the-art activities for ensuring innovation, data accessibility and education (through “watch dog” experts).

For the whole project, 15 deliverables have been submitted until today and 19 milestones have successfully been reached. WP1 arranges monthly online meetings for the DMG and bi-annual meetings for WP leads, minutes from the meetings are available on INTERACT web site.

Science diplomacy has continued and enhanced during the second year and includes contact with the new leader of the Arctic Council, Ambassador Kornuchov, giving keynote talks to Russian Ministers, Ambassadors and Governors, being high-lighted as a success story by EU for Russian/EU collaboration.

INTERACT Stories of Arctic Science II was launched at the UArctic Congress in May which was created within INTERACT 2. In INTERACT 2, it was also decided to produce interactive components of this book. In INTERACT 3, a whole INTERACTIVE e-book has been produced based on INTERACT Stories of Arctic Science II. This INTERACTIVE e-book has been developed with the expertise of TSU in collaboration with the Educational Watch Dog from Sheffield University. In addition to the stories, the e-book also contains details on research stations/areas, research institutions and environment where the work was carried out. Very many educational resources are currently being added to the book as well.

Deliverable D1.13 “Innovation monitoring plan” has been submitted to the EU. To monitor innovation impact, several indicators have been identified in almost all WPs in collaboration with WP Leaders. Some of them aim to foster people awareness on Arctic themes, some others to improve process efficiency and service level to users, and some to involve as many new stakeholders as possible.

Deliverable D1.17 “INTERACT Data Policy” was also submitted to the EU. It is a policy for how scientific datasets generated at the INTERACT stations are made available to the scientific community that is directly related to the Virtual Access and promotes free and ethical open data access to scientific datasets. INTERACT adopts the research data principles of H2020 Open Research Data Pilot and Horizon Europe that data are “as open as possible, as closed as necessary”.

An update on INTERACT Non-Profit Association (INPA) was also given. INPA was formally established at the Swedish Authority 8 Oct 2020 and a bank account was established in April. Draft internal documents have been sent out for comments and will later be sent to all INTERACT stations. INPA is a partner of the new EU project Arctic-Passion.

1.2 WP 2 Station Managers Forum (SMF)

Morten Rasch

The aim of the INTERACT's Station Manager Forum (SMF) is to foster a culture of cooperation between stations and with scientific communities, industries, local communities, and infrastructures in other regions.

Task 2.0 is to operate the station managers' forum, and so far, three SMFs and three seminars have been held. In addition, a workshop with participation of the marine and atmospheric research infrastructure communities has been held. The INTERACT station catalogue has been updated, a photo book called "Images of Arctic Science" has been published and three new guidebooks are ready for publication. INTERACT GIS is under development with a more user-friendly interface.

Task 2.1 (The unpredictable Arctic) is a collaboration with WP4 on extreme events in the Arctic. Extreme event types that can be used in a test monitoring programme are about to be identified.

Task 2.2 (Transport and communication) is a collaboration with WP5 on the Arctic Council science cooperation agreement, communication and positioning systems, and the reduction of CO₂ emissions from travel. An Internet platform concerning rules, regulations and permit needs for scientists planning fieldwork in the Arctic is ready for launch (<https://eu-interact.org/accessing-the-arctic/arctic-fieldwork-permits-and-regulations/>).

Task 2.3 (Making station data and publications widely available) is a collaboration with WP6 with seminars on state-of-the-art monitoring, scientific network standards and a repository for selected climate variables. Fruitful coordination across the work packages in the Data team has been established by WP3 to secure harmonization of data standards across INTERACT.

Task 2.4 (Educating local communities and decision makers) are courses on community-based monitoring, communication and the use of press releases. Due to the covid-19 situation, some milestones and deliverables have had to be postponed.

Task 2.5 (Cleaner Arctic) will explore ways to reduce pollution and emissions from research stations. Two guidebooks are soon ready for publication and a survey on screening activities at INTERACT stations has been conducted by AMAP.

Task 2.6 (The Arctic Resort) assesses tourism potential near INTERACT stations, how to communicate with tourists and input to guidelines for tourist operators. The milestone has been reached, a survey regarding tourism near stations has been conducted and a draft for cruise ship operators called "INTERACT station specific guidelines" has been produced.

Overall, work is in progress in accordance with the timeline, and cooperation among partners within and across the work packages along with stakeholders outside INTERACT is prospering.

1.3 WP 3 Giving Access to the Arctic

Hannele Savela

The aim of this work package is to give scientists access to the Arctic via transnational (physical) access, remote access (remote fieldwork with the help of staff at the station) or virtual access (via databases). The first deliverable 3.1 (TA and VA Quality Assurance Programme) has been submitted. D3.2 (How to

get the data? INTERACT metadata tag pilot technical manual) is in progress, as is D3.3 (Virtual Access Assessment Report 1). All milestones apart from 2 (that have been postponed) have been reached.

Since the last meeting in September 2020, several well-attended webinars have been held, the TA/RA call process was completed in March 2021, the Stories of Arctic Science II and INTERACTIVE e-book were published in May 2021, and several INTERACT Data team meetings have been held. There has been cooperation with WP5 (Connecting the Arctic) and a lot of outreach was made via social media.

Given the covid-19 situation, most of the granted projects in 2020 were shifted to 2021 or shifted from TA to RA, and many have also been shifted from 2021 to 2022. The next steps will be to monitor the situation with the TA projects to see which ones that can be carried out or postponed or shifted to RA. In June, an “IMLA tagging challenge” will be launched, where scientists are invited to train the INTERACT machine learning algorithm to aid the virtual access provision. More virtual access providers are being connected to the VA Data Portal. In July, instructions regarding the 1st periodic reporting will be sent out, and a webinar will be held on this topic on the 14th July 10.00-11.30 CEST. A TA user survey on bottlenecks will be sent out in early autumn, and an INTERACT external expert pool call will be announced in August-September 2021, after which the next TA/RA call will be opened.

1.4 WP 4 Unpredictable Arctic – extreme weather events

Jonathan Day

The aim of this work package is to document and improve awareness of the many consequences of extreme weather events in the Arctic that are of importance to ecosystem services, local and global communities, so that appropriate timely responses can be made.

Deliverable 4.1 “Documenting the effects of extreme weather events on the seasonal timing of species migration, range changes and biodiversity” was submitted in May 2021.

The aim of task 4.2 is “To get information from indigenous and local people and meteo-data about extreme events in Yamal Peninsula and to analyse it”. The winter 2020-2021 was very hard on the reindeer herders because of temperatures above 0 °C and even rain followed by -40 °C which resulted in a hard ice crust and no available food for the reindeer. Given the hardships it was also complicated to interview these people in the middle of the disaster. Expected future consequences are earlier migration times, economic loss for reindeer herders and closed roads for non-nomadic people. Pictures and videos from this task will be used in the INTERACTIVE e-book and the BBC films. A possible subject for a new project would be to focus on what will happen with the scavengers’ population and diversity, the vegetation greening, and the people in the region.

Task 4.3 is an evaluation of forecasts of arctic extremes with focus on hot and cold extremes using hindcasts to evaluate the reliability of forecasts of temperature extremes. The report is due in July 2021. Task 4.3 will be an exploration of INTERACT station data to understand forecast errors beginning with a multi-model analysis at Sodankylä research station using the YOPP site MIP dataset. The plan is to submit a proposal to the bulletin of the American Meteorological Society for an overview paper.

In the station managers’ forum there is money set aside to implement tests at for 4 INTERACT stations.

1.5 WP 5 Connecting the Arctic: Transport and Communication

Joseph Nolan

Arctic research is reliant on cross border cooperation and this work package is aiming to identify bottlenecks for the free mobility of researchers, their samples, and their data, and to make recommendations on how the implementation of the Agreement on Enhancing International Arctic Scientific cooperation could be further developed. Furthermore, the aims are to improve communication for local communities and research stations while introducing new smart instrumentation.

Deliverable 5.1 will be a “Report on Significance of the Agreement on Enhancing International Arctic Scientific Cooperation for Research in the Arctic” based on information gathered in a survey of station managers and TA users. This work has just begun.

Task 5.2 is to reduce barriers of communicating among stations, local communities, and the outside world. This task will work with the Station Managers’ Forum to identify state-of-the-art communication systems for researchers, stations, and local and Indigenous communities. A survey was conducted to identify the needs and areas of interest of the station managers, and this summer a webinar series will be scheduled to address the different sectors of satellite connectivity for these regions.

1.6 WP 6 Climate Action: Making data widely available

Maria Erman

The aims of this work package are to explore possible applications of machine learning related to landscapes and ecosystems, ensuring open data access. The first two deliverables have been completed (a pre-study on the needs from the station managers and a workshop on available ML and AI technology). The conclusions from the pre-study show that the researchers would like to use AI/ML techniques to reduce manual work for example via a cloud-enabled service. The work with deliverable 6.3 (Exploring possible applications of machine learning, focusing on topics related to land use, icescapes, landscapes and ecosystems) is ongoing.

This work package is interested in archived data for digitalization, especially written data. For discussions on anything AI/ML related, please contact [Maria](#), [Markus](#) or [Carl](#).

1.7 WP 7 Preparing for a future world: improving education and awareness at all societal levels

Terry Callaghan

The main objectives of this work package are 1) to develop and deliver educational resources at school and university level 2) to increase awareness of the general public to Arctic environmental change and its global implications 3) to establish a new generation of researchers capable of making high level assessments of environmental change in the Arctic and its global implications.

For task 7.1 (Increased public awareness of Arctic environmental change and its global implications), four short films will be made together with the Natural History unit of the BBC where INTERACT provides footage and helps out with the story-line. A Memorandum of Understanding has been agreed

upon with the BBC. With 10 million viewers worldwide, this will also be a great way to promote INTERACT.

For task 7.2 (Networking and communication activities with teachers and schools), newsletters in Polish and English were distributed to 1600 teachers and educators together with an invitation to an INTERACT webinar series. The next steps are physical meetings, workshops, and conferences together with the teachers. The educational toolkits are being translated into Polish and a promo-video on educational toolkits is currently being produced.

For task 7.3 (Promotion of polar issues by providing educational resources to schools), at least 3 toolkits will be developed containing substantial material along with videos and online activities. All these educational resources have proven to be even more important during this covid period where a lot of the education has been online. The resources are ranging from simple animations to advanced animations produced by TSU.

60 online lessons for secondary schools are planned in English, Norwegian and Polish for task 7.4 together with an additional set of webinars by transnational access users

A lot of this added value is not covered by INTERACT funds (EU) but comes from a willingness to collaborate. Wicked Weather Watch and Edu Arctic are major contributors. This work package is also ready for collaboration with other partners willing to conduct webinars about research in their stations.

1.8 WP 8 Cleaner Arctic, cleaner world: documenting and reducing pollution

Simon Wilson

Pollution is an increasing societal challenge, and terrestrial monitoring is still insufficient. New concerning chemicals are being found in the Arctic and so the aim of this work package is to work together with INTERACT station managers to improve monitoring protocols and also to prevent stations from becoming polluters themselves.

A questionnaire was circulated among the INTERACT stations in the beginning of the year, and a webinar was held in March 2021 in cooperation with WP2 (Station Managers' Forum). A recording of the webinar is available under <https://www.youtube.com/watch?v=ps1bwioW72M> and the survey deadline was extended to the 15th June. Deliverable 8.1 (Catalogue listing local and transboundary emerging pollutants selected for possible (targeted) screening at INTERACT Stations) is due in July this year and is under preparation.

Work has already begun on the next deliverable 8.2 (Protocols for (target and non-target) screening of contaminants of emerging concern at INTERACT stations) which is due in January 2022. The next steps will be to complete the survey and compile the results and to identify researchers who are going to work at the stations with contaminant issues, find candidates for mentoring, and to establish points of contact with local communities.

1.9 WP 9 The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism

Niklas Labba & Melissa Nacke

The main aim of this work package is to work with the tourist industry and local and Indigenous Peoples to protect the relative pristine environment while also supporting the local and Indigenous communities to diversify their livelihoods by together developing the Arctic in a sustainable way.

The aim of task 9.1 is to educate the tourists and tourist operators in the Arctic. The plan is to develop a template for field station-specific tourism guidelines. Earlier this year, a survey was made on tourism at or near stations, and Melissa guided the audience through the survey results. The next step will be to finalise the draft of a template for specific tourism guidelines. Approximately 3 stations are needed to help on this task, and interested stations are welcome to contact [Melissa](#))

The work on upcoming deliverable “D 9.2 Reviewing existing tourism policies and regulations from an Indigenous and local Peoples’ perspective” is in progress. The next step will be to arrange a workshop in Kiruna, Sweden in December this year where Sameby (Sami village) members will be invited, and after that another workshop in February where the Sami parliament and organisations will be invited.

2. 1st periodic report for INTERACT III

Luisella Bianco

The first periodic report opens on *1 July 2021*. Part A will be handled by the coordinator and Part B is for the Work Package and Task leaders including a description of the work carried out by each beneficiary involved during the reporting period (1/1 2020 – 30/6 2021). The financial report includes an individual financial statement (Annex 4 of the GA) and an explanation of the use of the resources (in the Participant Portal).

The task leaders must send the WP leader a brief description of the work that has been carried out by each beneficiary in the task. The work package leaders will have to send a WP report to the coordinator by the *9 August 2021*, based on a template that will be distributed beforehand.

The 1st financial statement also opens on the 1st July. All beneficiaries must fill in their own financial statement into the Participant Portal and electronically sign it (PFSIGN – Project Financial Signatory - has rights to sign) and submit to the coordinator by the 15th August 2021. To make this, an FSIGN user role must be assigned to the project in each organisation. Costs shall always be reported in EUR and include everything that has occurred between 1st January 2020 up until 30th June 2021. Detailed instructions will be distributed.

Personnel costs must be detailed for each person carrying out work for the project (individual hourly rate multiplied by the actual hours worked for the action) and number of P/M (Person Months) worked on specific WPs. An EU time sheet (see an example in Appendix 1) must be used to specify the recorded working hours.

Other direct costs include travel and subsistence costs; equipment bought for the project and other costs. For more details, please find this presentation on the [INTERACT website](#)¹.

¹ https://eu-interact.org/app/uploads/2021/05/INT_III_REPORT_TO-EU.pdf

Appendix 1. EU Time Sheet

EU TIME SHEET

TIME RECORDING FOR A HORIZON 2020 ACTION – Minimum requirements

Title of the action (acronym):	INTERACT	Grant Agreement No:	871120
Beneficiary's / linked third party's name:	PARTNER acronym		
Name of the person working on the action:	Employee Name	Type of personnel <small>(see Art. 6.2.A Grant Agreement)</small>	Full-time employee

	Month	[Month / Year]	[Month / Year]	[Month / Year]	[Month / Year]	[Month / Year]	[Month / Year]	--	Total
Number of hours		26							
Work packages <small>(of Annex 1) to which the person has contributed by the reported hours</small>		WP2 WP3							
Date and signature of the person working for the action		<i>[Signature]</i>							
Name, date and signature of the superior		Supervisor Date							

Appendix 2. Programme

INTERACT H2020 General Assembly
26th May 2021

Wednesday 26th May 2021 **General Assembly INTERACT III**
2.00-6.00 PM Central European Summer Time
<https://us02web.zoom.us/j/82744605344>

Work package presentations

10 min presentation on progress and ways forward, then 10 min discussion on requirements from other work packages

- | | |
|--------------|--|
| 2:00-2:20 PM | WP 9 The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism
<i>Niklas Labba & Melissa Nacke</i> |
| 2:20-2:40 PM | WP 8 Cleaner Arctic, cleaner world: documenting and reducing pollution
<i>Simon Wilson</i> |
| 2:40-3:00 PM | WP 7 Preparing for a future world: improving education and awareness at all societal levels
<i>Terry Callaghan</i> |
| 3:00-3:15 PM | 15 min break |
| 3:15-3:35 PM | WP 6 Climate Action: Making data widely available
<i>Maria Erman</i> |
| 3:35-3:55 PM | WP 1 Project Coordination
<i>Margareta Johansson</i> |
| 3:55-4:15 PM | WP 4 Unpredictable Arctic – extreme weather events
<i>Jonathan Day</i> |
| 4:15-4:30 PM | 15 min break |
| 4:30-4:50 PM | WP 3 Giving Access to the Arctic
<i>Hannele Savela</i> |
| 4:50-5:10 PM | WP 2 Station Managers Forum (SMF)
<i>Morten Rasch/Elmer Topp-Jørgensen</i> |
| 5:10-5:30 PM | WP 5 Connecting the Arctic: Transport and Communication
<i>Joseph Nolan</i> |

5:30-5:50 PM 1st periodic report for INTERACT III

Luisella Bianco

5:50-6:00 PM Wrap up and ways forward

Margareta Johansson

Appendix 3. List of participants

Name	Surname	Organization
Nicoletta	Ademollo	The Consiglio Nazionale delle Ricerche (CNR)
Chris	Andrews	UK Centre for Ecology and Hydrology
Morgenstern	Anne	Alfred Wegener Institute for Polar and Marine Research
Marie Frost	Arndal	Aarhus University
Magnus	Augner	Swedish Polar Research Secretariat
Matthew	Ayre	The Artic Institute of North America
Maurizio	Azzaro	The Consiglio Nazionale delle Ricerche (CNR)
Tom	Barry	CAFF secr
Katharina	Beckmann	Lund University
Luisella	Bianco	4PM
Nicole	Biebow	Alfred Wegener Institute for Polar and Marine Research
Sydonia (Donie)	Bret-Harte	University of Alaska Fairbanks
Martin	Breum	Martin Breum
Terry	Callaghan	University of Sheffield
Maier	Christian	Zentralanstalt für Meteorologie und Geodynamik
Nick	Cox	UKRI (British Antarctic Survey)
Jonny	Day	ECMWF
Jan	Dick	UK Centre for Ecology and Hydrology
Maria	Erman	AFRY
Giorgio	Falsaperna	LINKPRO
Nina	Filippova	Yugra State University
Piotr	Glowacki	Institute of Geophysics, Polish Academy of Sciences
Agata	Goździk	Institute of Geophysics, Polish Academy of Sciences
Hrönn	Guðmundsdóttir	Rif Field Station
Tomas	Gustafsson	AFRY
Jens Ådne Rekkedal	Haga	University of Oslo
Susan	Holden Martin, MBA J.D.	Other
Svenja	Holste	Other
Troels	Jacobsen	AECO
Margareta	Johansson	Lund University
Scott	Johnson	Canadian High Arctic Research Station
Stanisław	Kędzia	Polish Academy of Sciences - geography Dept
Nina	Kirchner	Stockholm University
Cornelya	Klutsch	NIBIO
Hanna Maria	Kristjansdottir	Sudurnes Science and Learning Center
Niklas	Labba	JNL Niklas Labba
Elena	Lapshina	Yugra State University
Kirsi	Latola	University of Oulu
Josefine	Lenz	Alfred Wegener Institute for Polar and Marine Research

Leena	Leppänen	Finland Meterological Institute
Kim	Lindgren	Swedish University of Agricultural Sciences
Elke	Ludewig	Zentralanstalt für Meteorologie und Geodynamik
Loonen	Maarten	University of Groningen
Trofim	Maximov	Institute for Biological Problems of Cryolithozone of Siberian Branch of Russian Academy of Sciences
Mauro	Mazzola	The Consiglio Nazionale delle Ricerche (CNR)
Dirk	Mengedoht	Alfred Wegener Institute for Polar and Marine Research
Jennifer	Mercer	Other
Lemay	Mickaël	UNIVERSITE LAVAL
Verena	Mohaupt	Alfred Wegener Institute for Polar and Marine Research
Nicola	Munro	UKRI (British Antarctic Survey)
Maribeth	Murray	The Artic Institute of North America
Melissa	Nacke	AECO
Kimmo	Neitola	University of Helsinki
Heli	Niittynen	University of Oulu
Joseph	Nolan	European Polar Board
Christina A.	Pedersen	Norwegian Polar Institute
Harry	Penn	The Artic Institute of North America
Rainer	Prinz	University of Innsbruck
Frank	Rack	Other
Zofia	Rączkowska	Polish Academy of Sciences - geography Dept
Morten	Rasch	University of Copenhagen
Katrine	Raundrup	Greenland Institute of Natural Resources
Giorgio	Resci	INKODE
Pedro	Rodrigues	Rif Field Station
Iain	Rudkin	UKRI (British Antarctic Survey)
Krzysztof	Rymer	Adam Mickiewicz University in Poznan
Hannele	Savela	University of Oulu
Annette	Scheepstra	University of Groningen
Olga	Shaduyko (Morozova)	Tomsk State University
Wlodek	Sielski	Institute of Geophysics, Polish Academy of Sciences
Jørgen	Skaftø	Aarhus University
Markus	Skogsmo	AFRY
Irek	Sobota	Other
Aleksandr	Sokolov	Arctic Research Station (IPAE)
Mateusz	Strzelecki	Other
Carl	Sundström	AFRY
Otso	Suominen	University of Turku
Elmer	Topp-Jørgensen	Aarhus University
Angelo Pietro	Viola	The Consiglio Nazionale delle Ricerche (CNR)
Vito	Vitale	The Consiglio Nazionale delle Ricerche (CNR)
Simon	Wilson	Arctic Monitoring and Assessment Programme Secretariat

Yulia	Zaika	M V Lomonosov Moscow State GDMSU Khibiny educational and scientific station
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