Dear alumni, friends, and supporters of the Department of Earth and Atmospheric Sciences.

As I write these words, we are slowly emerging from the 2020-21 academic year, which was marked by challenges and uncertainty stemming from the COVID-19 pandemic. Despite the profound disruptions we experienced, our students and faculty accomplished many remarkable things – not the least of which was simply surviving the year intact as a Department! I hope that you and your loved ones weathered the past year safely too! I also hope the stories about Geology, Meteorology, and Environmental Science faculty and student activities in this newsletter convey a sense of our resilience and our successes over the past year.

I am proud to work in a department that strives to provide a rigorous, inclusive, and student-centered learning environment. I admire the efforts of our faculty who consistently go the extra mile to impart knowledge and skills to students in their chosen fields. I applaud our students who persevered in their classes and completed their degrees under extraordinary circumstances. And I am grateful for the continuing support that our alumni and friends provide to help enrich our current students’ educational experiences and help us sustain the outstanding reputation of our Department.

On that note, I am delighted to announce the newly established BrownOtter Scholarship for Earth and Atmospheric Sciences. Thanks to a generous bequest from the Ivan ‘BrownOtter’ Lacore estate, this endowed fund will support GEL, MET, and ENS majors in our department for many years to come!

We enjoy hearing from all alumni and friends of the department. Please drop us a line to let us know what you’ve been up to and be sure to stop by Brooks Hall on your next trip to Mount Pleasant – perhaps during Homecoming this fall.

Cheers!

Larry Lemke
Professor and Chair
Department of Earth and Atmospheric Sciences
Severe convection and climate research has had an active year despite the pandemic, with a number of new faces joining the group here at CMU and lots of students getting opportunities to be part of research projects. Two new Ph.D. students joined us in 2021; Carlos Cuervo Lopéz, who recently finished a Masters of Engineering in Hydraulic Resources at the Universidad Nacional de Colombia at Medellin, Colombia, and Alan García Rosales, who came from a position as a Modeling Analyst at the National Meteorology and Hydrology Service of Peru. Both students will explore what makes severe thunderstorms happen in different parts of the world as part of the ‘Toward a Global Understanding of Severe Convective Storm Environments’ project.

Virtual conference participation gave us an opportunity to take CMU research to the world, with presentations at the AMS Annual Meeting, the Australian Meteorological and Oceanographic Society virtual annual meeting, and the 3rd European Hail Workshop. Publications this year included topics like global climatology and changes to severe thunderstorm frequency around the world over the past few decades, methods to predict whether tornadoes will deviate toward the end of their life cycle, and tornado environments over Australia just to name a few.

There were several points for celebration as well, with two undergraduate group members moving on to new challenges at graduate school. Dennis Weaver completed his Honors Thesis looking at the damage caused by hail of different sizes. He will pursue his Masters in Geography at Villanova University, while Brian Horan is headed to the University of North Dakota to pursue his Masters in Atmospheric Science. A shout out also to former McNair scholar and group member Anthony Wilson who headed off to the Scripps Institute of Oceanography at UCSD to study for a Ph.D. in Climate Science – an amazing achievement.

In the classroom, CMU Atmospheric Modeling crossed new frontiers for undergraduate instruction, partnering with the UCAR Developmental Testbed Center to offer seniors a chance to learn how to run WRF simulations in the Amazon cloud with great success.

Summer 2021 has seen a large number of undergraduate research experiences supported by grants, both at CMU and at the University of Oklahoma through collaborations. Chippewas participating include Elizabeth Wawrzyniak (Junior) working under the NOAA JTTI project to provide a first guess frontal detection guidance for operational analysts, Scott Thomas (Sophomore) who is working on my NSF CAREER project looking at the differences between convective storm environments in different parts of the world, and Dennis Weaver (graduate) who is finishing off his hail damage relationships work.

Closer to home, recently we saw several tornadoes (including an F1) in the central Michigan region, and the CMU severe weather group got out in the field to help pin down tornado locations and contribute to the NWS damage survey. Some fascinating crop blown downs accompanied the damage to barns, power poles and irrigation pivots through the most intense swath. A good reminder that while severe weather might not be the most frequent in Michigan, it does happen and can be impactful, so being weather aware is always a good idea.

To keep up with the group activities you can follow Dr. Allen’s account sharing the groups research on Twitter @jtallen3.
Marty Baxter continues to teach the Synoptic Meteorology sequence, along with a sequence of first-year courses for new meteorology majors. Highlights for Dr. Baxter this year include his Spring 2021 sabbatical, publishing a News & Views piece on *Snowfall Events in a Future Climate* in *Nature Climate Change*, building a broadcast meteorology practice studio, setting up a Facebook group connecting broadcasting students and alumni, organizing the 10th annual Alumni/Career Day, and welcoming new students in small groups outdoors. During his sabbatical, he worked on archiving and visualizing data collected by our instruments, and shifted his research focus from winter precipitation to summer precipitation. He recently submitted a proposal to work with the National Weather Service in Grand Rapids to study the July 2019 24-hour Michigan record rainfall event, with hopes of improving forecasts of the impacts of future heavy rainfall events.

**New Practice Studio for Broadcast Meteorology**

With the Moore Hall TV Studio booked solid, meteorology students interested in broadcasting needed a place to log practice hours. Brooks 333 is now home to a small green screen, 4 monitors, a webcam, lighting, and a computer that connects to our IBM MAX weather graphics system - everything needed to practice and create material for demo reels, and available any time! These practice hours, coupled with NewsCentral 34, our course in Broadcast Meteorology, internships at Michigan TV stations, and mentoring by alums will allow any of our students to succeed in the broadcasting sector. In addition, this year we renewed our contract with IBM to maintain the MAX graphics system for another five years, along with a new computer to serve the imagery. These efforts will ensure that our students remain competitive with graduates from the top meteorology programs in the country.
CMU’s Weather Data Now More Accessible

Our surface weather station collects a large number of unique measurements of the atmosphere. Many of them are available via WeatherUnderground’s website, but not all. A new website created by Dr. Baxter displays all of our observations every minute. It also includes the view from our new webcam. Another new website displays data from our present weather sensor, which can determine the type of precipitation, as well as the number of precipitation particles and their size and fall velocity. Students will be able to make use of this data in a variety of classes.

Dr. David Weindorf joined CMU in June 2020 as our new Vice President for Research and Innovation. His research focuses on the development of new applications for proximal sensors, particularly portable X-ray fluorescence (PXRF) spectrometry, and visible near infrared diffuse reflectance spectroscopy (VisNIR DRS) for soil survey and environmental quality assessment. David has authored more than 180 peer reviewed publications and holds two patents. We are thrilled that his tenure home is in the Department of Earth and Atmospheric Sciences!
Despite a worldwide pandemic that affected all of us in different ways, the STARLAB members proved they can adapt and (academically) thrive under adverse conditions. This past year was not easy for any of us yet I am proud to highlight some major achievements made by current and outgoing STARLAB members.

**Denali Mokris, B.S. Environmental Sciences, Honor Student, Summa Cum Laude**
Denali graduated in May 2021. She performed outstandingly in both the lab and the classroom. She not only presented her research at Goldschmidt 2021 (a full talk which is fantastic for an undergraduate) but she is currently drafting an article to be submitted to Science of the Total Environment. This fall, she will begin her Ph.D. in Chemistry at Colorado State University to study soil biogeochemistry processes.

**Lauren Galien, B.S. Geology, Honor Student, Summa Cum Laude**
Lauren also graduated in May 2021. Her research project within the STARLAB consisted of characterizing trace metal contents in different types of meteorites. In August 2021, she will join the research group of Dr. Clive Neal at Notre Dame as a Ph.D. student in Earth Sciences to investigate geochemistry of the Moon!

**Carolina Guida, B.S. Geology, M.S. Geology**
Carolina was awarded a prestigious scholarship from the Government of Columbia to achieve her Ph.D. between the STARLAB and the University of Grenoble Alpes (UGA – France). She started her Ph.D. last May in Grenoble and will be working on exploring Gadolinium geochemistry in lake sediments.

**Leibo Bian, B.S. Geology, M.S. Geology, PhD Candidate**
Leibo is now in his last year of his Ph.D. between the STARLAB and Aarhus University (Denmark). He successfully published his first paper as a first author in the International Journal of Coal Geology and finalized the draft of three more manuscripts. One was recently submitted to Nature Geoscience! Recently, Leibo was awarded a $8,000 grant as the lead Principal Investigator.

**Anthony Chappaz, Director of the STARLAB**
The STARLAB was recently awarded an NSF grant to examine pyrite – trace element interactions in marine sediments. You are looking at a picture of the Effingham Inlet because I will be visiting and most importantly sampling that beautiful site in less that 6 weeks (September 2021). In addition, I was awarded a fellowship from UGA and will be working in person with Carolina this fall in Grenoble before she comes to CMU next year!
It’s been a year of student success and expanding research opportunities in the Boundary Layer and Convective Processes Group!

Ph.D. student Christian Boyer stayed busy analyzing mobile mesonet and sounding data from our lake-breeze fieldwork last summer, and we both presented results at the AMS Annual Meeting in January. Our goal is to better understand the destabilization of inland-adveected marine air and how that relates to the development of thunderstorms in western Michigan. Analysis of the data we sampled will be complemented by an idealized modeling study, and Christian has been hard at work fine-tuning a method to improve idealized simulations of convective boundary layers. Christian’s hard work this year culminated in passing his prospectus and comprehensive exams in May. Congratulations, Christian!

We’re excited for this summer’s fieldwork when we will be joined by a team from the University of Illinois, and are looking forward to having MET major Collin DeYoung back on the team. In addition to our mobile mesonet and soundings, our collaborators will bring a Doppler Lidar, as well as instruments to measure surface heat and moisture fluxes. More to come on that front in next year’s newsletter!

In the fall, I had fun teaching Meteorological Instrumentation and Observation for the first time. This was one of my favorite classes as a student, so I’m delighted to add this to the list of classes I teach. As things return to normal from COVID, I’m particularly excited about giving students more hands-on experiences with our mobile mesonet, sounding systems, and the MET program’s new drone – a DJI Phantom 4 Pro, instrumented with an InterMet XQ2 sensor to measure pressure, temperature, and humidity. I’m excited to be working with the CMU Advancement team to set up a crowdfund account to support mesonet research. Watch for an announcement from the EAS Department soon with details about how you can contribute!
EAS Student Support Funds

Thanks to the generosity of alumni and friends over many years, the Department of Earth and Atmospheric Sciences is blessed with multiple funds to attract and support students! As our department grows, new students arrive, and costs of higher education rise, alumni support has become increasingly important to helping us maintain those incredibly important student experiences such as field trips, undergraduate research, and travel to attend national conferences that make the study of Geology, Meteorology, and Environmental Science exceptional at CMU.

If you are considering a gift to our department (and we sincerely hope you are), here are descriptions of our student support funds. Many of these funds have an endowed corpus that generates a spendable income each year based on average investment performance over the previous five years. Others are simply spendable accounts where contributions can be disbursed immediately to support students and their activities. Both types of funds are essential to our educational mission. Thank you for your support!

**Ole H. Kristofferson Endowment**

The Kristofferson Prize was established in 1974 in honor of Dr. Ole Kristofferson who was the senior faculty member in the original Department of Geology. Candidates are nominated and selected based on their involvement in activities outside the classroom, serving as role models for other students, and potential for future success. Recipients typically receive a Brunton compass in a leather carrying case.

**The Hubert Dixon Crider Scholarship**

The Hubert Dixon Crider Scholarship was established in 1980 by a gift from the Muskegon Development Company. It honors the career of Hubert Crider whose many contributions in the oil industry included the first major oil discovery in the Michigan Basin. This award recognizes CMU junior and senior geology majors and minors for their outstanding scholastic achievement, communication skills, and potential for a successful career in geology. The Crider fund typically supports 4 to 7 students each year.

**Thomas S. Knapp Alumni Field Camp Scholarship**

The Thomas Knapp Alumni Field Camp Scholarship fund was established in 1986 by the CMU Department of Geology to support students with summer geology field camp expenses. Knapp was an assistant professor of geology at CMU from 1968-1976 and was responsible for the layout of the rock wall southwest of Brooks Hall. Each year, the Knapp scholarship assists up to 7 geology students with their capstone field camp course in preparation for graduation and professional careers.

**Wayne and Ethel Moore Endowed Scholarship for Incoming Freshmen**

The Wayne and Ethel Moore Scholarship was established in 2006 to honor the memory of Wayne and Effie Moore who were prominent members of the CMU geologic community for many years. Wayne Moore served as chair and professor of geology at CMU from 1972-1987. Wayne and Effie also volunteered their time and wisdom at Big Bend National Park in west Texas. Today, this award is presented to an incoming freshman with strong academic promise planning to major in geology. It is renewable for a second year if the student maintains good academic standing and remains committed to a geology major with a minimum 3.0 GPA.
Martin Steinbis Endowed Scholarship

The Martin Steinbis Endowed Scholarship in Geology was established in 2012 by a generous gift from Martin Steinbis, a 1975 CMU geology graduate. Steinbis Scholarships are awarded based on 1) leadership and teamwork skills, 2) scholastic performance, 3) potential for career success, 4) department participation, and 5) demonstrated hard work and ambition, with preference given to students demonstrating financial need. Originally restricted to geology majors, environmental science majors will also be eligible beginning in 2022. The Steinbis Scholarship typically supports 4 to 6 students each year.

Pamela L. Grozdon Meteorology Endowment

The Pamela Grozdon Meteorology award was established in 2018 from a gift to the Department of Earth and Atmospheric Sciences. Meteorology majors with a cumulative GPA of 3.25 or greater and demonstrated financial need are eligible for this scholarship, which is renewable for a second year. At the present time, the endowment can support 1 award each year.

Edmore Meteorite Undergraduate Support Fund

The Edmore Meteorite Fund was established in 2019 by a generous donation from the owner of the Edmore Meteorite – the 12th documented meteorite discovered in the State of Michigan. This gift account supports research costs incurred by undergraduate geology, meteorology, and environmental science students. Research expenses associated with independent studies, senior theses, honors projects, and capstone projects are eligible for funding. In the first two years since its inception, this fund has supported 7 students.

BrownOtter Scholarship for Earth and Atmospheric Sciences

The BrownOtter Scholarship endowment was established in 2021 by a bequest from the estate of Ivan “BrownOtter” Lacore, a 1964 CMU graduate. Mr. Lacore’s concern for clean air and clean water motivated his desire to support a renewable award for students seeking degrees in Environmental Science, Geology, or Meteorology. Recipients must demonstrate financial need with a cumulative GPA of 2.2 or greater. We anticipate that this endowment will support about 8 students each year.

Wayne E. And Ethel P. Moore Field Trip Award

Income generated from this endowment is used to subsidize travel, lodging, meals, and other expenses for class and departmental field trips. During non-COVID years, EAS typically runs field trips for Mineralogy/Petrology, Earth History, Field Methods, Stratigraphy and Sedimentology, and Structural Geology. Occasionally, we also run departmental field trips to destinations such as Arizona, New Mexico, California, or Puerto Rico.

Alumni Geology Student Travel Fund/Meteorology Student Travel Fund/Environmental Science Student Travel Fund

Funds contributed to each of these ‘spendable’ gift accounts are used to support field work, field trips, travel to attend national meetings, and EAS student professional development.

EAS Department Discretionary Fund

This fund is a workhorse for the EAS Department. We use funds contributed to this gift account to cover costs of many different activities each year. These include bringing seminar speakers to campus and supporting departmental service awards for our students who go above and beyond to contribute to the spirit and success of the EAS Department. The Discretionary Fund also supports Academic Achievement Awards for top performing MET and ENS students, as well as the Bailiwick Award for GEL and ENS students exhibiting exceptional tenacity and achievement in geologic research.
The 2020-2021 Academic Year was a challenge, to say the least. The semesters were filled with navigating the technical components of the Hyflex system, and re-working classes to balance face-to-face and virtual instruction. Field work was steeped with detailed safety plans and health screenings. Despite such an unusual year, getting to work with our students made it worthwhile!

We were able to work with the ‘new normal’ and have a very successful year. Monitoring the climate in the Great Lakes remained a research focus for me this year and it was a great chance to get students in the field for some socially distanced hands-on learning. Haley Scott (MET S’21), Nathan Makowski (MET S’23), and Jesse Beaulieu (MET S’23) worked on station maintenance and data collection for an in-situ weather station in an under-sampled area of Michigan’s lower peninsula. This data contributes to our assessment of long-term hydroclimate trends in the Great Lakes area.
Faculty & Staff [finally!] Victorious in the EAS Annual Food Drive Competition

For the past four years, our Department held a spirited competition to see whether the EAS students or faculty and staff could donate the most food to the Isabella Community Soup Kitchen and the CMU Student Food Pantry.

For the first time since we began, the faculty and staff triumphed over the students in 2020! Whether this was due to the antics of Drs. Baxter and Lemke who produced a series of preposterous videos to motivate donations, or simply a result of fewer students on campus due to COVID will be determined when the competition resumes this November.

If you’re reading our newsletter online, you can check out our Back to the Food Drive videos by clicking the links below. If not, find our newsletter at se.cmich.edu/EAS and give them a click.
Larry Lemke

The past year has been eventful for me and the students working with me in my research lab. I was tremendously excited to watch my first doctoral student, Leah Jackson, successfully defend her dissertation in May. Leah now holds a faculty position with the Oklahoma Geological Survey at the University of Oklahoma, Norman. Congratulations Dr. Jackson!

Several undergraduate students also completed research projects related to PFAS (Per-and Polyfluoroalkyl Substances) under my direction last year. Mike Connolly, Lance Crenno, Kyle Dymowski, Marie Reid, and Dani Riemersma worked together to numerically model the hydrogeology, groundwater flow, and advective transport of dissolved PFAS from a site in Kent County, Michigan. This team of students met at 8 a.m. twice each week to complete their project!

Bridget Bittmann presented her research on PFAS Migration into and beneath the Rogue River at the virtual Geological Society of America national meeting in October 2020. Bridget is now a graduate student at Boise State University.

Wendy Robertson

This year, Dr. Robertson has been hard at work on her ongoing grant to assess the impact of game-based learning on undergraduate student engagement and retention. Her first academic game is officially published (The Hydrologic Cycle Game, Central Michigan University Press; https://class.cmich.edu/hydrogame) as part of a new endeavor at CMU to produce high-quality, peer-reviewed games for educational settings.

Ongoing projects for the Robertson research group include investigating the role of Emerald Ash Borer-Induced Mortality on Paludification (Sarah Krzemien Honors Capstone), partitioning the hydrologic budget of protected foredune/wetland complexes on Beaver Island (Dr. Robertson, sabbatical), and modeling hydrologic response to climate change in the Saginaw Bay watershed (Drs. Robertson and Kluver, ongoing). Finally, Dr. Robertson was recently selected as a Community Scientist with the Thriving Earth Exchange (American Geophysical Union) to work with the community of Ore Lake, Michigan to understand hydrologic inputs and explore options for flood mitigation.
Teaching and research spread in novel directions last year. We offered new courses as part of our revised Geology curriculum enhanced with more professional development experiences. It was exciting to teach a combined Mineralogy and Petrology course and a Field Methods course in the Fall. We replaced the traditional field trip to the UP with exercises around campus because of COVID-19 restrictions, but the small class size allowed us to meet face to face while maintaining distance. In the Spring, I taught for the first time a class to prepare seniors for the ASBOG Fundamentals of Geology (FG) examination and a sophomore-level Research and Communication in Geoscience class designed to expose students to real research experiences. Students collected and analyzed water samples around campus, from the drinking fountain in Brooks, to snow-melt puddles, ponds, and ditches... Not enough space here, but in summary, our environment is not as clean as you might think!

I am very proud of my expanding team of research students. Clara Brennan (who earned her B.S. in geology at CMU in 2015) has returned to work on a Ph.D. with me on the geocycle of lithium, a tiny element of such huge economic importance! Undergraduates Victoria Konieczka, Emily Yoder, Jacob Zieziul, and Peter “Smitty” Smith are all working on different aspects of pegmatites and completing independent studies, senior theses, or Honors capstone projects. Rose Lopez is systematically sampling and analyzing campus waters this summer. We are preparing to travel as a team to investigate lithium and gemstone prospects in Maine this August. Some students will present their results at GSA this Fall, others in the Spring.

Thank you so much to all those who contributed to our new Edmore Meteorite Undergraduate Support Fund! We are truly putting it to a good use. Research expenses such as geochemical analyses, hourly charges to conduct Scanning Electron Microscopy, and part of the research field trip costs for several students are now being covered from the Edmore fund. What a great way to help interested students gain the huge benefits of conducting collaborative research! Again, a big THANK YOU! Please keep in touch!
It was another productive and successful year in the Geophysics and Geomechanics lab, despite the many challenges and limitation of the pandemic time.

Doctoral student Adedoyin Adeyilola continued his investigation into petrophysical and geochemical properties of the Antrim Shale, an unconventional gas formation in the Michigan basin. In the Fall 2020, he presented his work at the GSA and AGU Annual meetings and received a GSA research grant and an E.Z. Manos Memorial Scholarship from the Michigan Basin Geological Society (MBGS).

Undergraduate student Grace Borst completed a year of independent studies on energy technologies, induced seismicity, and borehole methods of stress analysis. She is preparing to work on a Senior Thesis in the Fall to deepen her training and research skills at the intersection of geology, geomechanics, and energy technologies.

In January 2021, we welcomed a new Postdoctoral Fellow – Suman Saurabh. Suman received his PhD degree in engineering from Southern Illinois University Carbondale and brings expertise on microbial generation of natural gas, high-pressure gas sorption processes, and experimental rock mechanics to our research group. He is helping to expand our experimental capabilities in geomechanics and gas sorption and to explore research ideas in microbial methanogenesis in the Antrim shale and beyond.

For my part, I continue teaching Introduction to Earth Systems and Geomath and enjoy introducing geosciences to incoming undergraduate students and helping our majors master essential math skills. I look forward to another exciting academic year, and to more in-person interactions with students.
Enriching Undergraduate Education through Team Research

Our Alumni Advisor Board members remind us time and again that employers need graduates who can work effectively in teams. To that end, EAS creates opportunities for students to collaborate on projects in our classes, laboratories, and in the field. Here are examples of Team Research Projects that help our students develop teamwork skills while collecting and analyzing data for actual research projects. These experiences help to distinguish our programs and most importantly our graduates in employers’ eyes!

CMU-STORM (Student Training for Observational Research in Meteorology)

Each summer, Jason Keeler engages a team of undergraduate and graduate students to traverse the Lake Michigan shoreline in the CMU Mobile Mesonet (a broadly instrumented research vehicle) as part of the CMU-STORM project. Together, they sample boundary layer variability across lake breeze fronts and the occasional thunderstorm! Shown here are MET students Nick Bogen, Alec Kownacki and Haley Scott in front of the mobile mesonet as a thunderstorm approaches Muskegon, Michigan.

Modeling Per-and Polyfluoroalkyl Substances (PFAS) Transport in Groundwater

Five Environmental Science majors collaborated with Larry Lemke to create a groundwater flow and contaminant transport model of PFAS moving between the House Street Disposal Site and the Rogue River near Rockford, Michigan. Using data from engineering and environmental consulting reports, they constructed and calibrated a MODFLOW model for the region. Shown here are (left to right) ENS 597 students Danielle Riemersma, Marie Reid, Kyle Dymowski, and Mike Connolly at the location of nested monitoring wells MW-29 A, B, C, and D.

CMU Surface Water Chemistry

Students in Mona Sirbescu’s Research and Communication in Geoscience class worked in teams to sample and analyze water samples they collected across the CMU campus. The focus of their project was to investigate the effects of de-icing agents on waters released from snow melt. In addition to analyzing their results for NaCl, KCl, and other salts on the liquid ion chromatograph in Dr. Sirbescu’s lab, the GEL 277 students documented their results in reports and oral presentations. Shown here is the sample location map for Team 1 (Sophia Rich, Ryan Tims, and Amanda Miles).

Great Lakes Precipitation and Climate Monitoring

Daria Kluver’s team of undergraduate researchers measure snowfall and precipitation to support models of current and future precipitation and predict changes in Great Lakes climates. Their field instruments are deployed throughout the Great Lakes region including Institute for Great Lakes Research-supported stations on Beaver Island and Garden Island. Shown here are Nate Makowski and Jesse Bealieu working on a climate monitoring station near Atlanta, Michigan.
Thank you to all of the alumni and friends who helped support the Department of Earth & Atmospheric Sciences over the past year!

CMU Geology and Meteorology Alumni – Where are you now? What are you doing?

We genuinely would like to know!

Please send a letter to the department or an email to our chair (L.D.Lemke@cmich.edu) and fill us in on your whereabouts, your career, and your achievements. Let us know if you would like to share your experiences during Alumni Career Day or if you are interested in serving on one of our Alumni Advisory Boards.

Thank you for helping us to keep in touch!