



Who knew?

The Aero Aerial

The Newsletter of the Aero Amateur Radio Club
Middle River, MD
Volume 17, Issue 8
August 2021

Editor Georgeann Vleck KB3PGN

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Club Nets	Joe Miko WB3FMT
Contests	Bob Venanzi ND3D

Website: <http://w3pga.org>

Facebook: <https://www.facebook.com/pages/Aero-Amateur-Radio-Club/719248141439348>

About the Aero Amateur Radio Club

Meetings

The Aero Amateur Radio Club meets at 7:30 pm on the first and third Wednesdays of the month at Essex SkyPark, 1401 Diffendall Road, Essex. Meetings begin at 7:30 p.m. local time. Meetings are canceled if Baltimore County Public Schools are closed or dismiss early.

Repeaters

W3PGA 2 M : INPUT : 147.84 MHz, OUTPUT : 147.24 MHz, PL 123.0
W3PGA 70 Cm: INPUT : 444.575 MHz, OUTPUT : 449.575 MHz, PL123.0
W3JEH 1.25 M: INPUT : 222.24 MHz, OUTPUT : 223.84 MHz

Club Nets

Second Wednesday Net – 70 Centimeters (449.575 MHz Repeater) @ 8 p.m. Local Time
Fourth Wednesday Net – 2 Meters (147.24 MHz Repeater) @ 8 p.m. Local Time
Fifth Wednesday Net – 10 Meters (28.445 MHz) @ 8 p.m. Local Time

Radio License Exams

The Aero Amateur Radio Club sponsors Amateur Radio License Exams with the ARRL VEC. Examination sessions are throughout the year. Walk-ins are welcome; arrive no later than 30 minutes after start time. \$15 charge.

2021 Examination Schedule DUE TO COVID-19 DATES May be **Canceled!**

Time:	1 pm	1 pm	
Dates:	September 11 new date	November 20	
Where:	American Legion, Rosedale	American Legion, Rosedale	

American Legion Post 180, 1331 Seling Ave., Rosedale, MD 21237

Contact: Patricia Stone AC3F, email: ac3f@juno.com, landline: 410-687-7209

LOCAL AREA NETS

Day	Time	Freq. (MHz)	Net Name
Daily	9 – 10 am	145.330	Oriole Net
Daily	6 pm	3.820	Maryland Emergency Phone Net
Daily	6:30 – 7 pm	145.330 no PL	Balto. Traffic Net (b/u 146.670 PL 107.2)
Daily	7 pm & 10 pm	3.643	MD/DC/DE Traffic Net
2 nd Tue	7:30 pm	146.670	Baltimore County RACES Net
2 nd Wed	8 pm	449.575	Aero ARC Net
4 th Wed	8 pm	147.240	Aero ARC Net
5 th Wed	8 pm	28.445	Aero ARC Net
Fridays	7:30 pm	145.330	Back in the Day Net
When activated by NOAA		147.030	SkyWarn (primary)

From the President's Desk – July 5, 2021

Field Day 2021

I wish to thank all the Aero Amateur Radio Club members for supporting and participating in Field Day 2021. This was the first post-Covid-19 activity, and many people decided to get out of the house for a while! The event was as always, a success. The one major factor for the Club's success at the 2021 Field Day was its operating location. As with the previous years, we were at the Essex Skypark, in Essex Maryland. With a roster of **51** Aero members, **25** were able to participate either operating or in some other support activities. Not bad, not bad at all! **49%** of the club members participated, that is a fine turnout for any club.

During the 24-hour event we had **16** operators from Aero that is a **31%** operator turn out. Set up time was done smoothly because of the members that arrived early Friday afternoon. By 6 pm on Friday all 4 HF radios and associated laptops were setup and ready as well as the 20-meter beam and 3 Off Center Fed Dipoles (OCFD). Additional members were on hand early Saturday morning to assist in any final preparations. With all the teamwork and hard effort, everything was ready and operational as of 11 am on Saturday, just in time for the Safety briefing.

The radio configuration this year was a 4A, one station running the 20-meter beam using a rotator, one station running digital and CW, and two stations running either phone or CW. The last three stations were connected to OCFDs.

There was also a VE session in the Fixed Base Operation (FBO) building across from the Community Hanger. Testing started at 12 noon with 4 applicants, all the applicants passed to get new or upgraded licenses.

The weather during Field Day was pleasant with temperatures in the high-80s with low humidity and light winds.

Club member Tom Henry N3TJR works with several house delegates from the State of Maryland and was able to coerse, err... convince, a few to visit the Aero Amateur Radio Club during this Field Day. Delegates Richard Metzgar (R, District 6, Baltimore County) and Rick Impallaria (R, District 7, Baltimore and Harford Counties) visited. Both delegates were shown the FD setup and were provided information about an emergency radio setup. They were also shown the antenna setup.

But there is more. We did have some trouble in "River City" in the form of gremlins. Those pesky varmints had their way with the 20-meter beam. First, in the putting it together, we had a high Standing Wave Ratio (SWR) running around 5:1 and not being resident at 14.150 MHz. After multiple attempts, which included cleaning the elements and adjustments to the Gamma match, the 20-meter beam with rotor was raised. Things were looking good.

Now let's try the rotor. This was the first time in recent history that the rotors in the equipment trailer were used, and unfortunately they too were gremlin-infected. Rob AE3B was able to work with a sometimes-working rotor and did a great job nursing it along.

Susan Landis, Bob's XYL, prepared Friday's dinner for the members of the club, along with 3 kinds of cookies, molasses, chocolate chip and oatmeal. The dinner consisted of pulled pork BBQ, with calico beans and a green salad where you add the fixings and dressings. She also provided a dessert of Apple Turnovers. After dinner people just molded into their chairs.

The gremlins showed up a third time on Bob's OCFD. This was the dipole in front of the hanger and easily assessable. For some reason, this antenna presented a very high SWR.

Here we go again. OCFD are normally transmitter-friendly, requiring little or no tuning. OK, let's change the coax. Its O Dark something [sic], so it comes down and a new coax is connected, raise the antenna. And try it, same problem. It being Bob's antenna, we know the antenna isn't the problem, so we repeat the last sequence and, voila, it works! The SWR is now 1.5:1! Yaha! Bad coax. The two of them are marked and in the trailer to be repaired by next FD. The rotors will also hopefully see a work bench by next FD.

The next event was an overhead pass of the International Space Station (ISS). This lab orbits at about 248 miles above the Earth, moves 17,500 mph (5 miles per second), and circles the Earth every 90 minutes. This pass was to occur at 04:35 am from West to East.

Steve KD3TP had a new Kenwood HT and a handheld Yagi antenna. At the appointed time the ISS appeared to come from behind the trees and proceeded to make its flyover. Steve was able to hear the ISS and stations from Florida and New York, but unfortunately was unable to contact them because of a missing uplink tone. Gremlins again. Rob assisted Steve with pointing the Yagi. Great signal from the ISS. I am sure this will not be Steve's last attempt at a Space Contact.

At about 1:00 am Sunday morning, Marty Pittinger KB3MXM, the Maryland, District of Columbia (MDC) Section Manager, following a long day of visiting other FD sites, made it to the Aero site. He was given a tour of setup and showed the Aero club's display panels designed by Rob AE3B. This was Marty's last stop of the day.

But that is not all. At about 8:00 am Sunday morning Sue brought breakfast for the members on site – a Sausage Egg and Cheese in a warm biscuit.

Later Sunday morning Chris Van Winkle AB3WG, the Baltimore Traffic Net (BTN) Net Manager, paid a visit and stayed till 4:00 pm helping the club pack up for a next event.

Some Firsts:

Ran as 4A instead of 3A
Super setup time on Friday
Operational as of 11:00 am on Saturday
Breakdown by 4:00 pm on Sunday

Special thanks go to the following people:

Jerry Cimildora – Friday setup and Skywarn display
Warren Hartman – Towers, Lights, cables, etc.
Rob Ballou- the 3 panel Graphics Display, directional signs, and other FD graphics.
Susan Landis – Saturday Dinner with Dessert and Cookies & Breakfast
Bob Landis – Setup, Coffee, FD Computer setup and LAN Connections
Dave Fredrik – Helping with setup, Solar Panels, Electrical tie in
Marty Braun – Setup and returning the 20-meter beam back to Ron after breakdown on Sunday and the trailer back to Richard

Again, thanks to all who came and helped out in any capacity, whether operating or other supporting modes.

Band	CW	Phone	Digital	Total	%
80	9	109	0	118	25
40	21	121	31	173	37
20	40	115	4	159	34
15	1	4	0	5	1
10	0	9	0	9	2
Total	71	0	35	464	100

We made 1,140 QSO points, 1,450 Bonus points for a Total of 2,590, 44 States (and yes, we got Delaware, Alaska and the Virgin Island) with **464** contacts.

We also had the biggest turnout in memory, with 33 people working or visiting the Aero FD site on Saturday the 26th.

Thanks to all who helped make this a safe and successful Field Day event.

Joe Miko
WB3FMT



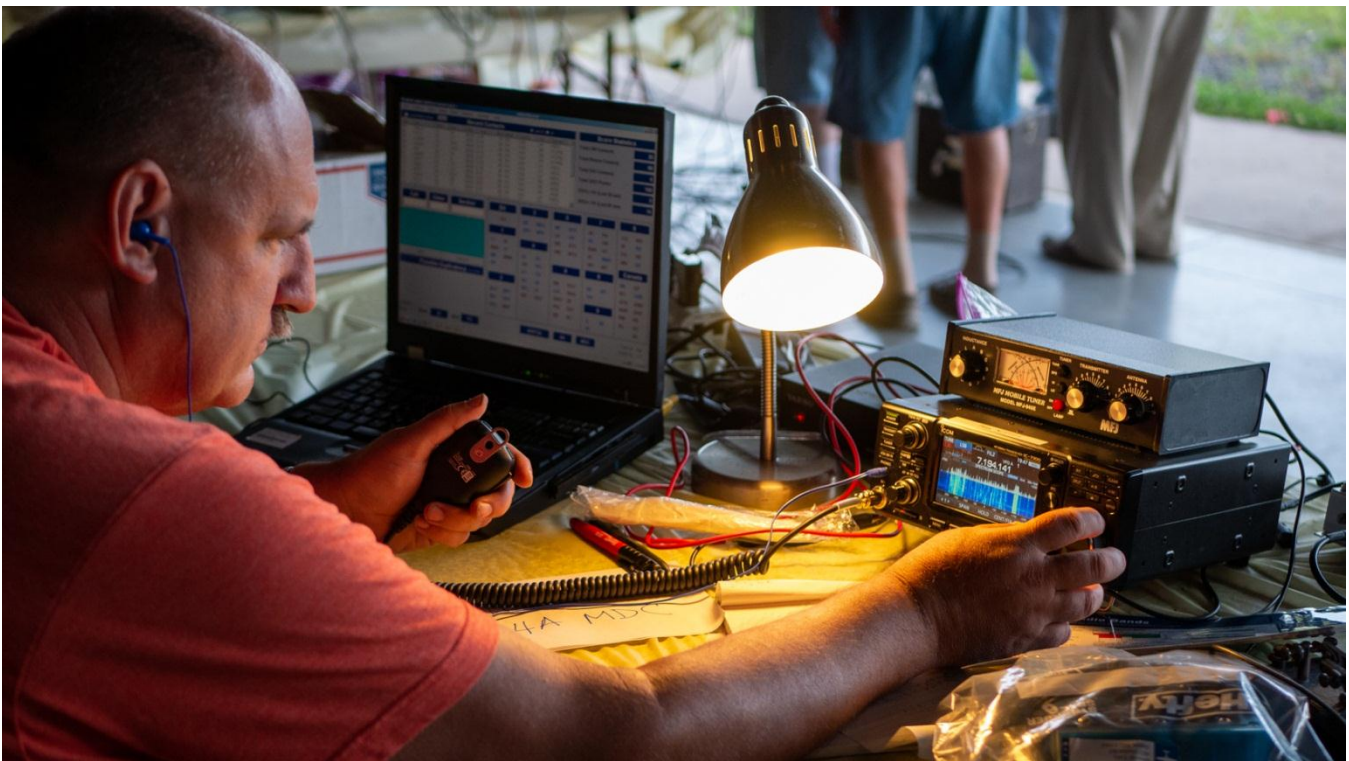












All photos courtesy of Tom Henry. Full selection available at <http://www.nongraphics.com/FieldDay2021/#4>



Net Reports

7-14-21: No net.

7-28-21: 147.24r MHz, 20:00 to 20:41 local.

W3PGA NCS Joe Essex, KB3JVP Ken Middle River, K3DON Don Joppatowne, N3FQC Don Perry Hall, W3ESX Jamison Essex, KB3VAE Richard Bowley's Quarters, KB3GRG Haydon Bowley's Quarters

7 participants on the net



VE CORNER by Pat Stone, AC3F

The AERO VE Team held its 6th annual Field Day exam session on June 26th. We served 4 applicants. Congratulations to new Tech Josiah KC3SKA, new Generals Anil KC3SKB and Jeff KC3QPM and new Extra Evan KC2NQP.

Many thanks to VE's: N3VBJ, KB3KRV, KD3TP, WA3QLY and KB3VAE for assisting me with this session. We couldn't do this without you. Hope to see you in September. It's always it is a joy working with you.

Our next test session has been changed to **Saturday, September 11th** at 1PM at the American Legion Post in Rosedale. Hope to see you there.

Hamfests

Sunday, October 3, 2021: CARA Fest

Location: Howard County Fairgrounds, 221 Fairgrounds Rd, West Friendship, MD 21794

Website: <http://www.carafest.org>

Sponsor: Columbia Amateur Radio Association (CARA)

Talk-In: 147.390 MHz /R+ CTCSS 156.7 Hz

Public Contact: David Parkison , KB3VDY, P.O. Box 911 Columbia, MD 21044, Phone: 443-492-9501,

Email: vendorsales@carafest.org

Ham News

ARES/RACES and the Spur Fire in Bagdad, Arizona

by Rusty Evenson — May 28, 2021 — www.facebook.com

I wanted to post this yesterday. But we were kind of busy. It's a bit long. But I think you'll find it worth your time. Yesterday afternoon, the Spur Fire initiated just outside of Bagdad, AZ. Bagdad is an active mining town with a population of about 1500. But it's out in the middle of nowhere with one road in and out and limited organic resources. It takes about an hour and a half to get there from Prescott. YCSO [Yavapai County Sheriff's Office] ordered an evacuation of the entire town at about 1515 as the fire threatened homes. As of this morning, there were 25-30 homes completely lost and approximately 150 acres burned. While great thanks and appreciation rightly go out to the first responders battling this fire to protect life and property, I want to talk now about someone who'll never be known to most people... a fella working behind the scenes for no pay or want of recognition. Before I get to him, let me set the scene.

The town of Bagdad sits in a small valley. Communications with the outside world rely on telephones (either landline or cell) and radios. Because the town sits in a valley, radio communication relies on radio repeater towers. All forms of communication rely on power. Because the fire was threatening and destroying structures, APS shut power down to the entire town. 911 and telephone communications were lost for a period of time. The radio relay tower is on the top of the most elevated position above the town and has battery backup... but it's not infinite. So, the call went out for an emergency portable radio relay tower to be deployed to Bagdad so first responders could communicate beyond line of sight with each other and command. Enter Art. [Editor's Note: Art Protas, KG6AY]



Art is an affable fella in his mid to late 70's and is a volunteer with ARES/RACES (Amateur Radio Emergency Services). He is neither tall nor strong but he is smart... extremely smart. When the call came to us for the portable relay tower, Art jumped up and said, "I have those! But I need someone good with towing to trailer it out there because it's long and the tower location out there has limited space." I said I could do that. So we jumped in a truck and headed over to hook up the trailer.

On the way out to Bagdad, Art was a bit nervous because he'd never been deployed to the field before and he couldn't ping the fixed relay tower out there. I asked if he knew how to set up the

tower we were towing. He said he did. But he's only set it up for exercises. I said, it's the same thing except this time there will be flashing lights and we'll be working in the dark.

A little over an hour and a half later, we arrived in Bagdad and met with Bob (YCSO communications guy) who led us up to the tower site where we met Dave (CAFMA [Central Arizona Fire & Medical Authority] communications). Holy smokes, the pad (a relatively small area really just clear enough and meant to have a couple trucks up there) was indeed small. So, I asked Art to jump out because I didn't want him in the truck if we went over the side of the mountain. In hindsight, I probably should have phrased that better as Art doesn't know my sense of humor and that spooked him a bit. I really needed him out there to spot me to make sure I didn't drive the trailer off the edge of the mountain because I'd lose sight of the outside trailer wheels as I made the tight turns and I needed to use the entirety of the pad. Anyway, we got the trailer in place with relative ease and Art went to work.

For a fella in his mid to late 70's, Art is pretty spry. He was like a spider monkey moving all over and getting that tower set up and leveled... in the dark with only flashlights to guide the way. Within 30 minutes, Art had the tower completely deployed and the communications guys had it hooked up and running with a SAT communications check. First responders were now able to communicate with everyone in and out of the valley because an old man VOLUNTEERS his time and know-how to help people who will never know he was there.

Art fell asleep on the ride back home as we were (as he put it) well past his bedtime. We got back to the Emergency Operations Center in Prescott at about 2230 MST (10:30 p.m.). But on the ride back, I marveled at the man snoring in my passenger seat for his selfless devotion to people he doesn't even know. God bless you, Art.

[Editor's] Notes: In a lunchtime conversation with Yavapai Signal editor Loren Singh AE7CG on June 9, 2021, Art Protas KG6AY admitted to being only 73 years young. He insisted that he did not fall asleep on the ride home from Bagdad. Also, Art wanted to acknowledge the ARES/RACES participation of Frank Bender K8FB, John Snedden KT7P, and Terry Schultheiss KG7BAM in responding to the Spur Fire in Bagdad.

Source: Yavapai Signal, July 2021

Registrations Strong for 24th Annual International Lighthouse Lightship Weekend

Set for August 21 - 22, the 24th annual International Lighthouse Lightship Weekend ([ILLW](#)) will be back, despite the disruption of the global COVID-19 pandemic. Each year, typically on the third weekend of August, [participants](#) set up portable stations at or near lighthouses and lightships around the world.

Last year, prospects for the event were looking dim, but "regular supporters wanted the event to be a beacon of hope," the event's sponsor said. More than 360 registrations from 43 countries backed up their belief. As of July 8, this year's [registration tally](#) had already topped 200, with 25 participants signed up to activate lighthouses or lightships in the US. The ILLW typically attracts entries for some 500 lighthouses in more than 40 countries. The event has few rules and is not a typical contest-type event. The ILLW will begin at 0001 UTC on August 21 and continue through 2400 UTC on August 22.



Each station's operators decide how they will operate their station with respect to modes and bands. There are no power restrictions or entry classes and no scores.

"We wish operators to enjoy themselves and have fun while making contact with as many amateur radio stations as possible," ILLW said in the event announcement. "We request that stations take time to work other lighthouses or lightships, as well as the slow operators or newly licensed or QRP stations." Participants contact the relevant authorities to obtain permission to operate. It is within the guidelines of the event to move operations from a lighthouse to a museum for historic reasons. In any case, the lighthouse should be visible to, and visited by, the public wherever possible.

Visit the ILLW website for more detailed information.

Source: The ARRL Letter for July 8, 2021

Next QSO Today Virtual Ham Expo to Offer Nearly 100 Speakers, 18 Topic Tracks

The third [QSO Today Virtual Ham Expo](#) takes place over the August 14 - 15 weekend, and presentations will remain available on demand for 30 days. Sponsors predict that the event will be "a great experience" for those wanting to improve their knowledge of amateur radio as well as of cutting-edge ham radio technology and practical techniques. ARRL is a QSO Today Virtual Ham Expo partner.



A [complete list of speakers](#) at the QSO Today Virtual Ham Expo is posted on the event's website.

These are some examples:

- In the "Antennas and Transmission Lines" presentation, August Hansen, KB0YH, will focus on such topics as small transmitting loop design and *STLcalc*, an open-source design aid for STL and magnetic loop antennas that can respond to user's changing needs and design goals.
- Geoffrey Mendenhall, W8GNM, will address the topic, "Compromise Beverage Antennas Hear Better Than You Think." The presentation focuses on overcoming non-ideal terrain and space limitations.
- "Fun with HF QRP Pedestrian Mobile," with Peter Parker, VK3YE, will offer a look at two antennas for HF pedestrian mobile, and the results possible with such an operation.
- Ham radio author Don Keith, N4KC, will present "Top 5 Get-On-The-Air-Quick Antennas," which offers recommendations for the simplest, most effective antennas to consider.
- Within the "New License -- Now What" track, the presentation "HF Noise Mitigation" will describe various noise sources and how to mitigate noise using a variety of techniques.
- Anthony Luscre, K8ZT, will discuss "Technician Licensees, Life Beyond Local Repeaters." Participants will explore the world of activities, modes, and bands available outside of repeater operation.

There's no limit on the number of topics and tracks that QSO Today Virtual Ham Expo visitors may view. Return any time within 30 days to (re)view any presentation, as well as to explore exhibitor offerings. "Early bird" tickets are \$10 (\$12.50 "at the door"). Access to only the exhibitor area is free.

Source: *The ARRL Letter for July 15, 2021*

From the Skies over Mt. Essex

SKY Events for August 2021

Aug 1st – Saturn is at opposition. Uranus is 1.8° N of the Moon OUT 20:00 EDT 7/21`

Aug 8th - New Moon

Aug 11 – Venus is 4° S of the Moon 7UT, 03 EDT, Mercury is 1.2° N of Regulus

Aug 12th – Perseid meteors peak at 19UT, 15 EDT approx. 90 /hr.

Aug 15th - First Quarter Moon

Aug 19th – Mercury is 0.1° S of Mars 04UT, 00 EDT

Aug 20th – Saturn is 4° N of the Moon 5UT, 01 EDT.

Aug 22nd - Full Moon also a Blue Moon (4 Full Moons in a season) Traditional Name is Full Sturgeon Moon and Celtic The Dispute Moon.

Aug 28th – Uranus is 1.5° N of the Moon 9UT, 05 EDT.

Aug 28th – First Carrington Class Solar Superstorm recorded.

Aug 30th – Last Quarter Moon

Planet Lookout at mid-Month EDT

Sunrise 06:19 EDT and Sunset 19:53 EDT

Mercury – Evening Rise 07:26, Set 20:35, Mag -1.0, Size 5.1 arc seconds.

Venus – Evening Rises 09:18, Sets 21:29, Mag -3.9 and 13.3 arc seconds.

Mars -- Evening Rises 07:46, Sets 20:43, Mag 1.8 and 3.6 arc seconds.

Jupiter -- Evening Rises 20:03, Sets: 06:49, Mag -2.9 size 49.0 arc seconds.

Saturn – Evening , Rises 19:07 Sets 06:17, Mag 0.2, Size 18.6 arc seconds

Uranus— Morning Rises 23:20, Sets 13:07 ; Mag 5.8 size 3.6 arc seconds.

Neptune -- Evening Rises 21:07 Sets 08:51; Mag 7.8 size 2.3 arc seconds.

Catch a Comet if you can!

Charles Messier (French 26 June 1730 – 12 April 1817) was a French astronomer. Messier's occupation as a comet hunter led him to continually come across fixed diffuse objects in the night sky which could be mistaken for comets. He compiled a list of them, in collaboration with his friend and assistant Pierre Méchain (who may have found at least 20 of the objects), to avoid wasting time sorting them out from the comets they were looking for. The entries are now known to be 39 galaxies, 4 planetary nebulae, 7 other types of nebulae, and 55-star clusters.

Messier did his observing with a 100 mm (four-inch) refracting telescope from Hôtel de Cluny (now the Musée National du Moyen Âge), in downtown Paris, France. The list he compiled only contains objects found in the area of the sky Messier could observe, from the north celestial pole to a declination of about -35.7° . They are not organized scientifically by object type, or by location. Paris's latitude is N 48.85 is the same latitude as Seattle, WA. And the N tip of New Brunswick, CA.

The first version of Messier's catalogue contained 45 objects and was published in 1774 in the journal of the French Academy of Sciences in Paris. In addition to his own discoveries, this version included objects previously observed by other astronomers, with only 17 of the 45 objects being discovered by Messier himself. By 1780 the catalog had increased to 80 objects.

He published an astronomical catalogue consisting of 110 nebulae and faint star clusters, which came to be known as the *Messier objects*. The purpose of the catalogue was to help astronomical observers distinguish between permanent and transient visually diffuse objects in the sky. Remember the comets - those 110 fuzzy objects keep getting in his way.

In 1751, Messier entered the employ of Joseph Nicolas Delisle, the astronomer of the French Navy, who instructed him to keep careful records of his observations. Messier's first documented observation was that of the Mercury transit of 6 May 1753, followed by his observation's journals at Cluny Hotel and at the French Navy observatories. In 1764, Messier was made a fellow of the Royal Society; in 1769 he was elected a foreign member of the Royal Swedish Academy of Sciences; and on 30 June 1770, he was elected to the French Academy of Sciences.

And for the comets he was hired to find, he found up to 13 comets by himself and another 7 or so as a co-finder. Few people know about the comets, but the fuzzy list is world known.

Wikipedia Article about Charles Messier.