

W0BLK
BLACK HILLS AMATEUR RADIO CLUB, INC

3288 Sandstone Lane
Rapid City, SD 57701-5388

Call to Order: The BHARC meeting was called to order at 7:01 pm on 21 August 2026 by President Ryan Lindblom KE0LXT. The meeting was held in the EE/Physics Building at the South Dakota School of Mines and Technology, room 251A.

The following attended the meeting in-person:

Andy Pattantyus KF0ARA
Jeff Larus KF0TSG
Bob Henriksen KF0AM
Jeff Halgerson K0HF
Gary Peterson K0CX
Shelby Solem - guest
Jim Stith KI7URL
Larry Broomfield AC0WT
Marshall Merchen - guest
Becky Fish N3ZMH
Greg Maxwell NT4TN
Dave Minnick N9FI
John Murphy AJ0GM
David Jeffries AF0DJ
Joyce Jeffries KB0WCE
Ryan Lindblom KE0LXT
Sid Reade K0WWH
Jim Woods N0NAC
Chris Jaques KD0RAS
Jim Larkin KF0TSF
Don Jarvinen K0DAJ
Delbert Long KD0AYN
Kris Shrewsbury - guest
Mike Schaff KD0ZIP
Steve Naeve N0NKS
Bill Lewis KJ7PRE
Betty Rush KA7PJQ
Debbie Kretzschmer KF7CJF
James Kretzschmer AE7AX
Mike Kempin N0USY

Introductions: Each attendee introduces themselves.

Secretary's Report:

Sent out minutes for July 2026. Need approval.

Dave Jeffries AF0DJ moved to accept the July 2026 club meeting minutes, and Jeff Larus KF0TSG 2nds. Vote: none opposed, motion approved.

Treasurer's Report: Chris Jaques KD0RAS provided the treasurer's report by email:

Current Balances at Black Hills Federal Credit Union:

Regular Share:	\$5.20
High yield Savings:	\$4,106.97
Checking:	\$1,051.60
12 month CD:	\$8,336.92 matures in November 10, 2026
12 Month CD:	\$8,336.93 matures in May 12, 2027
Paypal:	\$554.22

Pending Disbursements:

\$25.00 SDSMT July meeting room
\$87.71 SDSMT clubhouse electric May 18 thru June 18
\$82.10 SDSMT clubhouse electric June 18 thru July 18

Dues/Donations/Receipts:

None.

Becky Fish N3ZMH moved to approve the Treasurer's report and Sid Reade K0WWH seconded, Vote: none opposed, motion approved

Committee Reports:

Engineering/Technical Committee: Mike Key K0MDK and Chris Jaques KD0RAS reports: Mike Key K0MDK is working tonight. Bob Henriksen KF0AM climbed the tower. The internet is still not working. Bob Henriksen thinks the issue is the radar, which is running at 7 to 8 GHz. May have to go to 2.4 GHz.

Public Relations and Recruitment Committee: Don Kendall N1NOX (absent)
No report

Activities Committee: Delbert Long KD0AYN reports
Veterans March September 19th
Betty Rush KA7PJQ reads a thank you card from Dennis Lunsford at the Runner's shop

Education: Larry Broomfield AC0WT reports

Technicians Class. \$30. Decision to go with the full ARRL book. Settled the location for the class at HomeSlice. Start mid-September. Missing the advertisement for this round.

ARES Committee: Ryan Lindblom KE0LXT

Will report in new business.

Andy Pattantyus KF0ARA moved to accept committee reports, Jeff Larus KF0TSG 2nds. Vote: none opposed, motion approved

Summary of Community Service Activities

Two community service activities since the July 17 2026 club meeting:

- Heart of the Hills on Saturday July 18

Summary of Education Activities

The program at the BHARC club meeting each month is education.

Old Business:

Letter from the Civil Air Patrol (CAP). The Board recommendation to the membership is not to pursue.

Andy Pattantyus KF0ARA moved to accept the board recommendation, Larry Broomfield AC0WT 2nds. Dave Jeffries AF0DJ abstains from voting. Vote: majority accepts the motion, John Murphy AJ0GM opposes, motion approved.

New Business:

Request from the Endurance Horse ride. Sept 4, 5th and 6th.

Base Camp at Jenny Gulch, Rapid Creek TH, Brush Creek TH

6:00am start for 50 milers

6:30am start for 30 milers

Looking for volunteers. The following HAMS volunteered at the meeting:

Becky Fish N3ZMH for Sunday, requests pairing

Delbert Long KD0AYN is flexible.

Ryan Lindblom KE0LXT cannot do Friday, but can do Sat and Sun.

Bill Lewis KJ7PRE can do Sunday

Dave Jeffries AF0DJ all 3 days, 4th, afternoon on the 5th, and all day on the 6th

Andy Pattantyus KF0ARA is flexible

Andy will take the sign-ups

Elections are coming up.

Requirements: Member and licensed

Dave Minnick N9FI, Mike Key K0MDK and Delbert Long KD0AYN are the board members up for re-election

Don Jarvinen K0DAJ nominates Ryan Lindblom KE0LXT for President

Andy Pattantyus KF0ARA nominates self to continue as Secretary
Chris Jaques KD0RAS nominates Mike Key K0MDK for board
Larry Broomfield AC0WT nominates Delbert Long KD0AYN for board
Chris Jaques KD0RAS is willing to continue as Treasurer
Jim Larkin KF0TSF expresses interest, Jeff Larus KF0TSG nominates Jim

Annual meeting

Sunday Sept 13th 4:30pm to 6:30pm
Pizza Ranch Luna Ave behind Sam's Club

Chris Jaques KD0RAS confirms an exam session at 9:00 am Aug 22nd at Home Slice 333 West Blvd. Enter the building on the West side. Info on the web, and will send an email. Have enough available VEs to test all levels. Applicants need to create their FRN ahead of time. Exam fee. Bring a photo ID. Those who are testing for an upgrade need to bring their current license.

New Member Applications:

None

Announcements:

None

Adjourn:

Jeff Larus KF0TSG moved to adjourn the meeting and Jeff Halgerson K0HF 2nds. Vote: none opposed, motion approved.

The meeting was adjourned at 7:38 pm.

Andy Pattantyus, KF0ARA

BHARC, Secretary

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Program - Jim Stith - KI7URL speaking about ARISS

2020 ASU EE degree program, on pause with family and kids
Wife teaches a STEM class at Lead High School
Jim is now in curriculum development
Looking for presenters for 20 minutes and 45 minutes

Partnering with ARRL to build an 80 lessons STEM Curriculum, free to science teachers
Unit 7 Pico Balloons
Unit 8 ARISS
Build a SATRAN. <https://satran.danaco.se> Get the Gerber files, soldering
Unit 2 Build a Yagi Antenna

Jim's group created instructions for SATRAN in the process of building European ethernet cables are different from the USA.

ARISS Amateur Radio on the International Space Station

Created by an international consortium

Started in 1983

ARISS formed 1996

Lead Deadwood is selected as the 50th state for ARISS late 2026 or early 2027

Have about 10 minutes of ISS in the line of sight

Application takes time

What is the educational mission?

ARISS contact via: Direct Contact, Telebridge, Virtual Telebridge

Lead/Deadwood - suboptimal location, so opting for a Telebridge

Wyoming's first ARISS contact. Schedules for Nov 2020, finally success in March 1, 2021

Selected about 2 weeks ago. Want to bus elementary school from Deadwood to Lead, as an assembly for HS, MS and ES.

Kites with GoPro, then Drones. Becky has the stuff.

Weather balloons at Newcastle.

Contact with Nebraska, pico balloon around the world.

Q&A

1. Any classes around here?
2. Publish the slide deck?
3. ISS has a limited life. Future commercialization will affect ARISS? The ISS is pushed past its 20 year lifetime. ARTEMIS may start something.
4. Space X has a contract to de-orbit the ISS
5. How much of ARISS translates into satellite? Not much for Telebridge. For direct contact, much more. ISS passes every 90 minutes. Multiple trainings
6. Band? 2m 70 cm FM, Unit 8 has a discussion about Keplerian elements.
7. How to match polarization? Signal becomes elliptically polarized.
8. Slow scan transponder on the ISS?
9. Repeater is saturated.

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