Reordered the questions, added some notes.

11. How is math used in what you do? Which do you find more enjoyable between applied engineering and pure research? Why?

> Much of the day to day programming work just uses algebra. Software or formulas based on complex math. Fairly rare to do real calculus, etc.
> Linear algebra, statistical signal processing
>
> Neg. and Pos. of engineering and research

14.What branch of mathematics would you say that you use most often?
"Is most of the work of your team theoretical or realistic (like, hands-on building)?
How important would you say it is to be flexible in your career?
Do you work more with ideas that others come up with or with ideas that you come up with yourself?

> Focus on applied engineering – flight tests.
> Most people make career changes.
> Both

16.What non-proprietary softwares do you rely on for signal processing? Are some softwares proprietary that you use or develop? How would you offer a student an explanation as to how trigonometry might figure into signal processing?

> Matlab/octave
>
> Many signals are sinusoids. A lot of trig is done using complex exponentials. Example of trig in signal processing: https://apps.dtic.mil/dtic/tr/fulltext/u2/1065142.pdf

5. I have students interested in electrical engineering. What research would be good for high school level in your field?

> Google:
> audio digital signal processing high school
> image processing high school
> circuits high school
> Arduino programming high school
> ham radio high school

1. cont… Can you tell us more about applied engineering ? What university so you feel has the best applied engineering program or should you specialize in one area?

Good to get some real experience – research, internship, Co-op. This will probably be in one area. We are near Philly, and Drexel has a good Co-op program, so we get a large share of Drexel interns. You can look up rankings, MIT, Caltech, etc…

1.How do you collaborate with all the engineering disciplines?
12.You mentioned that in the development of SMART weapons, there are people with varying backgrounds, such as in physics, mathematics, electrical engineering, and mechanical engineering. What are some ways that good project managers are able to organize lengthy projects that involve such a wide array of people working together?
I read your publication about “Constrained Geometry
Relative Swarm Localization” from 2018, what is the status of your research at this moment? Are the soldiers getting training on this?

Collaboration example: swarming weapons navigation – localization technologies, localization algorithms, navigation and control
Large companies vs small groups
Broad vs narrow
Micromanage vs synergize
how to win friends and influence people

2.Do all of the varied parts that go into a project like guidance technology work simultaneously together or does each build and test their own parts separately then get "put together" at the end for a cumulative final testing?

Depends. HIL

8."If not classified, can you tell us more about smart weapons?
How types of smart weapons are there and what are their “jobs”?"
15.Would you say you are on the Army’s offensive or Defensive branch of research? Regarding a smart weapon, what features would make the weapon smart? Is it the guidance system or is it the deployment system. For example, does a human still need to make a decision to deploy or does the weapon make that decision?
13. cont… I know that smart weapons can strike with pen point precision, but do you feel that the human presence should always be part of the use of those weapons?
4. What do you consider smart weapon? How does our military compare w/ “smarts” of other countries?

Our smart weapons, other possibilities – just targeting to in-flight target selection.

8. cont… How does your background in integrated circuit design help you with smart weapon technology? What is the biggest change you have seen since your days at DEC in circuit design and technology

Digital design, FPGA

3.How long does it take to develop a sensor to aid soldiers in combat?
How are the sensors developed to improve their sensitivity to a desired target?"

COTS sensors, materials research
Fast-track fielding, normal fielding

10. What do you feel are the skills that students need the most in order to work in your field? Beyond working for army research, where can you apply what you have learned in the real world? What are the most interesting career paths for a recent Electrical engineer graduate?

Non EE: Sales, finance, management/support

Signal processing, communications

Device physics

Computer architecture

Programming, algorithms, machine learning, data analysis

Electromagnetics

Power systems

https://www.engineering.unsw.edu.au/electrical-engineering/types-of-electrical-engineering

6.What would you say is the best research article published that you feel is an exemplar for both scientists and research students to use as a model?

Could be a bad paper is a good model for students:
Compact implementation and performance evaluation of hash functions in attiny devices
claude shannon A Mathematical Theory of Communication
Candes, Romberg, Tao Robust uncertainty principles: Exact signal reconstruction from highly incomplete frequency information

13. What is compressive sensing? What is the advantage of compressive sensing compared to regular antenna measurement methods?

Compressive sensing: https://www.dsiac.org/resources/articles/can-compressive-sensing-solve-your-sensor-and-measurement-problems/

7.Are there any really cool materials that have unique properties that my physics students/chemistry students should spend extra time with in the lab?

9."I am very interested in materials research, which materials should be introduced in an entry level course so that everyone is aware of their properties,in your opinion?

Google: cool materials chemistry high school