

ASCEND

POWERED BY AIAA

ASCEND

**ACCELERATING
SPACE COMMERCE EXPLORATION
AND
NEW DISCOVERY**

**BUILDING OUR
OFF-WORLD
FUTURE!**

GRAPHICAL SUMMARY
BROUGHT TO YOU BY:

MAXAR

FOR CENTURIES...
SPACE HAS
CAPTIVATED
OUR **CURIOSITY!**

LOOKING FOR
NEW WAYS

**AND
MARS!**
ROBOTS...

... **NEW CAPABILITIES**
IMPROVE SAFETY
OF SPACE & LIFE ON EARTH!

**SUSTAINED
MISSIONS TO
THE MOON**

WILL
EXPAND
HUMANITY'S
REACH!

**AND
HIGH
POWER
SOLAR
PROPULSION!**

**INNOVATIVE APPROACH
TO SPACECRAFT**

MAXAR

TO MOVE
HUMANITY
FORWARD

FOR OVER 60 YEARS
MAXAR
HAS HELPED
VISIONARIES

WE
DESIGN,
BUILD,
& OPERATE

**INNOVATIVE SPACE
INFRASTRUCTURE**

OUR EARTH
OBSERVATION
TECHNOLOGY

SPACE EXPLORATION
COMMUNICATIONS
• FOR EARTH
INTELLIGENCE

AND
SYSTEMS!

IS **REVOLUTIONIZING**
HOW WE

- IDENTIFY
- UNDERSTAND
- PREDICT CHANGE

**NEXT GENERATION
CONNECTIVITY**

WELCOME!



WE LOVE A CHALLENGE!

LET'S BUILD AN OFF WORLD FUTURE!



KARI BYRON,
EMCEE

DANIELLE WOOD,
MIT MEDIALAB



LAUNCH EVENT

MARILLYN HEWSON,
LOCKHEED MARTIN
EXECUTIVE CHAIRMAN

SECRETARY
BARBARA BARRETT,
U.S.A.F.

MAYBE YOUR FUTURE
ON THIS PLANET...
ISN'T ON
THIS PLANET!



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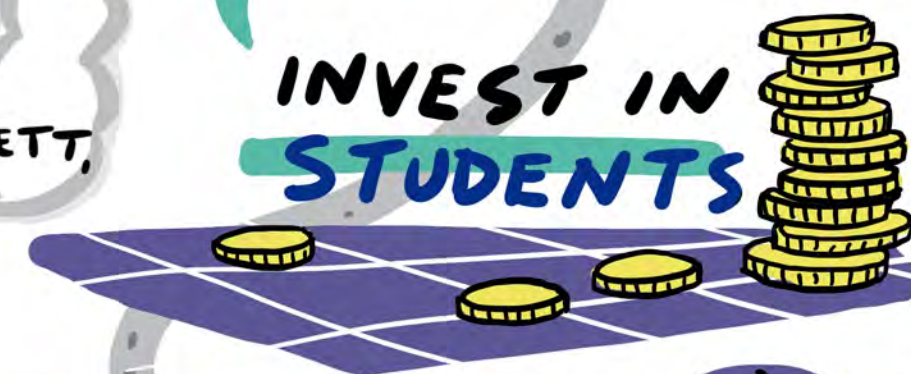
WE'RE IN A NEW
SPACE AGE!

IT'S AN
EXCITING,
BREAKTHROUGH
TIME!



THEY ARE OUR
FUTURE!

INVEST IN
STUDENTS



GOVERNMENTS
WORKING TOGETHER



INVEST IN
INNOVATION



GAIN THE VALUE THAT'S
OUT THERE!

GET OUT OF YOUR
COMFORT
ZONE!

AND
BEYOND!



PURSUE
SUSTAINABILITY
ON EARTH....

FOCUS ON TRAVEL
& TRANSPORTATION

LIKE
ORION!



BUT WATCH OUT
FOR
SPACE-DEBRIS!

U.S. SPACE FORCE IS
BUILDING RULES-OF-THE-ROAD
FOR SPACE



the
sketch effect!
VISUAL COMMUNICATION SOLUTIONS

WHY MOVE TO THE MOON? SPACE CONDOS?

WHAT WILL PEOPLE DO THERE?

WE'VE LIVED ON THE INTERNATIONAL SPACE STATION for 20 YEARS!

HAPPY BIRTHDAY!



WHAT'S NEXT FOR LOW EARTH ORBIT?

WE'RE FINDING NEW WAYS TO DO THINGS BETTER ON EARTH!

3-D PRINTING



MANUFACTURING



BUT HOW DO WE DO LAUNDRY?



SPACE ISN'T ONLY FOR MILITARY ANYMORE

PRIVATE CITIZENS

JOURNALISTS

WOMEN!

SO MANY ASTRONAUTS ARE WOMEN!

SHOPPING MALLS?



SOLVING PROBLEMS

LUNAR DUST

GARBAGE

CREATING HUMAN TISSUE

MEDICINES

MICROGRAVITY RESEARCH



MMM... SPACE CORN



ABILITY TO SUSTAIN OURSELVES WITH RESOURCES FROM MARS.

AND WE NEED TO BE ON MARS!

GO TO THE MOON & STAY!

ARTEMIS

SPACE-FENCE

TRAFFIC RULES



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GROSS!

WOULD YOU EAT A 'ME-BURGER'?



the sketch effect!

VISUAL COMMUNICATION SOLUTIONS

SYSTEMS USED IN THE BREWERY



COMPRESSED Air
FOR WASHING KEGS

Co2 TANK



STEAM BOILER

HEAT EXCHANGER



CHILLER

UV LIGHT



BEER IS
90% WATER

WE USE REVERSE
OSMOSIS

TO MAKE IT
JUST RIGHT!



AND SOFTWARE
TO HELP



... AND
ENJOY!

EVEN
IN
SPACE!



PLACE IN
KEGS...

ADD CARBONATION

AND PAY
TAXES



14-DAYS

FERMENTING

CHILLING WORT
3 WHIRLPOOLING

HOPS ADDED
TO REDUCE
SWEETNESS



1-2 HOURS

NOW INTO BOIL KETTLE

THIS ADDS THE
FLAVOR

800,000 BTU
Boiler



DROP INTO
MASH

2-3
HOURS



GRAIN
COLLECTION



GRAIN CRACKER

Milling

AUGER

A BEERS WITH ENGINEERS!



WITH JASON TAYLOR, OWNER AND
BREWMASTER
NEVADA BREW WORKS

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the
sketch effect!

VISUAL COMMUNICATION SOLUTIONS

ANKE KAYSER-PYZALLA
CHAIRWOMAN, DLR

JEAN-YVES LE GALL
PRESIDENT, CNES

KAILASAVADIVOO SIVAN
CHAIRMAN, ISRO

HIROSHI YAMAKAWA
PRESIDENT, JAXA

LARRY JAMES
NASA JPL

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JAXA

SPACE
EXPLORATION

LUNAR
MISSIONS

CREW-1
MISSION

"SLIM"

SIGNED
ARTEMIS
ACCORDS

ARE WE
THERE
YET?

H3 ROCKET
LAUNCH

LUNAR POLAR
EXPLORATION

ISRO

PANDEMIC CHALLENGES = INTERNATIONAL COLLABORATION

190
MISSIONS!

78 LAUNCH VEHICLE
MISSIONS

SPACE REFORMS

INDUSTRY
ACADEMIA

BIG & SMART DATA

DIGITALIZATION

CYBER
SECURITY

IN THE
TRANSFORMATION
OF SOCIETY!

DLR

RESEARCH
CENTER

SPACE
AGENCY

NEW
TECHNOLOGY?

SMALL
SATELLITES

NEW
RADARS

A.I.

ROBOTICS

THE
GLOBAL COMMUNITY
IS KEY TO BUILDING AN
OFF WORLD FUTURE!

MEETING
GLOBAL
CHALLENGES
IN PARTNERSHIP FOR THE
BENEFIT OF HUMANITY

GOVERNMENTS

SCHOOLS

INDUSTRIES

PARTNERSHIPS
IN THE FUTURE?

OUR PEOPLE
ARE OUR
PRIORITY!

WE LEARNED TO
WORK REMOTE...
...BUT
ACTUALLY MISS
OUR OFFICES!

WE LEARNED A
BIG LESSON...
...HUMAN
INTERACTION
IS IMPORTANT!

IMPACT OF
PANDEMIC?

\$208 MILLION
BUDGET FOR 2020

600
PARTNERSHIPS

CNES

SCO

SPACE CLIMATE
OBSERVATORY

EXPLORATION

the
sketch effect
VISUAL COMMUNICATION SOLUTIONS

ADMIRAL JAMES ELLIS, NPpC UAG

NATIONAL SPACE COUNCIL

ALL USERS OF SPACE

RECENT CHANGES TO MILITARY

THE NEW SPACE FORCE

PARALLELS TO THE SEA & NAVY

AREA OF EXPLORATION

THEN COMMERCE

NEEDS SECURITY

WE ARE VERY DEPENDENT ON SPACE!

OVER 14,000 SATELLITES

OVER 3/4 ARE COMMERCIAL!

DHANI JONES
QCY CAPITAL

WHAT WILL TOURISTS DO?

10 YEARS TRAVEL BY SPACE...
... TO MARS!

ENERGY SOURCES

DON'T FORGET... SPACE TOILETS!

THE FUTURE?
FOR INVESTMENTS

SPACE GREW UP AROUND ME
IN 1960'S
SPACE WAS THE "DOT-COM"

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COLLECTING ASTRONAUT SOUVENIRS

SPACE CAMP!

WHAT INSPIRED YOU AS A KID?

OVER 140 COMPANIES DEVELOPING ROCKETS!

NEW INDUSTRIES

WHAT HAS CHANGED AT SPACE X?

THINGS WERE STAGNANT

FOR 10 YEARS!

ACCESS COST IS NOW LOWER

AN ERA OF EXPERIMENTATION IS UPON US!

NOW WE KNOW THE COSTS!

SPACE COMMERCIALIZATION

STEVE JURVETSON
FUTURE VENTURES

SO... I LOOKED TO SPACE!

LOOK SON!

NOT IN FOOTBALL!

CHALLENGE AUTHORITY?

I'M AN NFL LINEBACKER IN THIS WORLD OF SPACE!

the sketch effect!

VISUAL COMMUNICATION SOLUTIONS

GENERAL RAYMOND U.S. SPACE FORCE

PEACE & PROSPERITY
IS OUR GOAL ...
... AND IT STARTS WITH
SECURITY!

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SPACE DEBRIS?

IT'S ALREADY A
SECURITY ISSUE

STUDENTS...
STUDY HARDER!
WE NEED YOU

AND
DETER
OUR
ENEMIES

FIRST...
WE MUST
STAY AHEAD
OF THREATS

WHAT ENABLES
SPACE R.C.O.
TO GO FASTER?

I CALL IT A
"SHRINK-RAY."



SPACE PITCH DAYS

COMMERCIAL
SECTOR

NATIONAL SECURITY & SPACE POLICY

GEN. THOMPSON
U.S.A.F.

MICHAEL
ROBERTS
SPACE RCO

WE'RE INVESTING IN
THE NEW SPACE
ECONOMY

S P E C

1/3 SPEC RELOADED!

INNOVATION

PARTNERSHIPS

WE MUST
MOVE & ACT
WITH SPEED

THINGS HAPPEN
AT THE SPEED OF
LIGHT

WE INVENTED
SPACE FORCE

COMPETITION
WITH
RUSSIA & CHINA

FUTURE CONFLICTS
WILL INVOLVE
SPACE CAPABILITIES

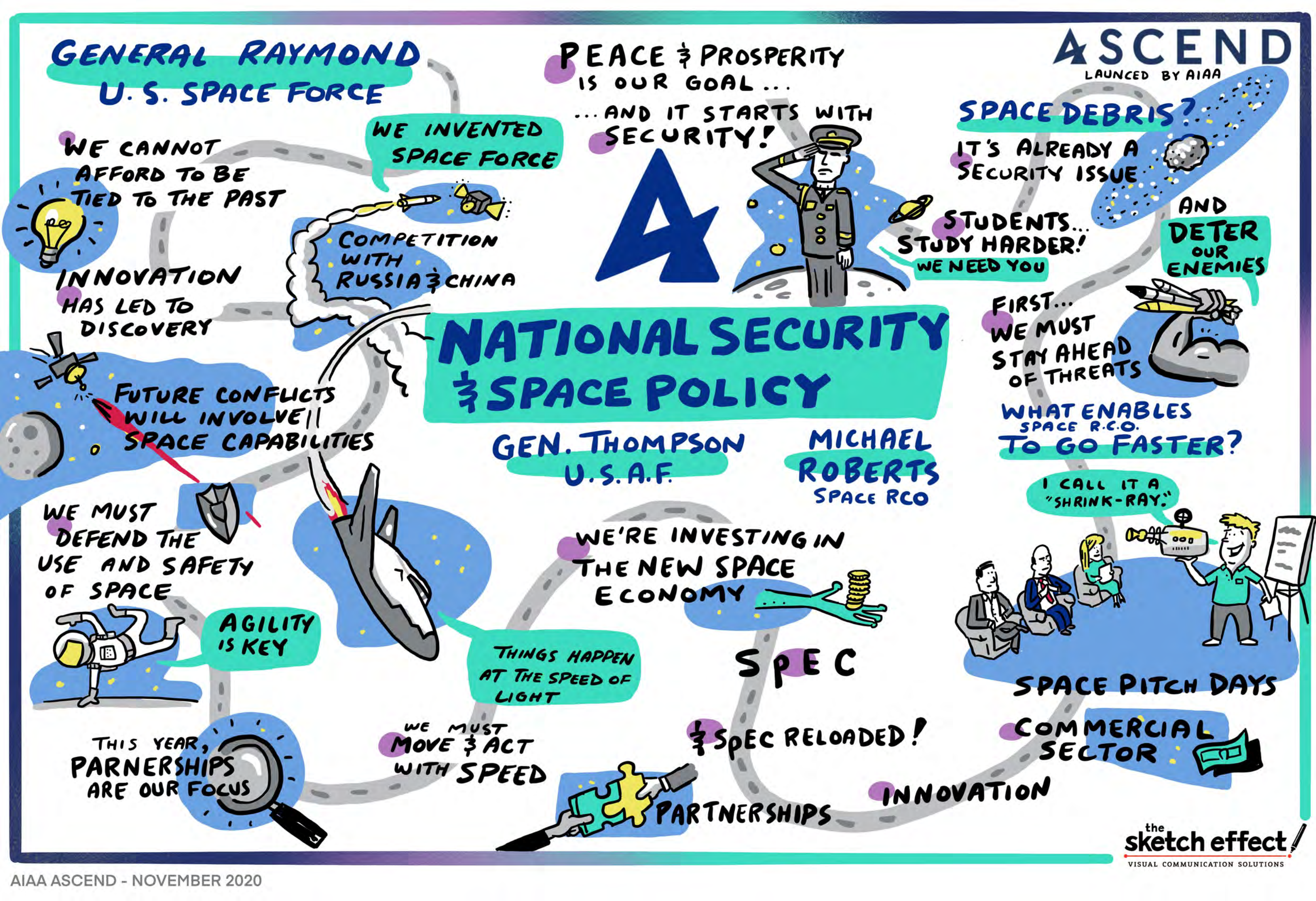
WE MUST
DEFEND THE
USE AND SAFETY
OF SPACE

AGILITY
IS KEY

THIS YEAR,
PARTNERSHIPS
ARE OUR FOCUS

WE CANNOT
AFFORD TO BE
TIED TO THE PAST

INNOVATION
HAS LED TO
DISCOVERY



WHAT NEEDS TO HAPPEN FOR THE FUTURE OF THE SPACE PROGRAM?

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ADAPTING
TO CONDITIONS



BUILD ON VIRTUAL EVENTS
& REACH PEOPLE GLOBALLY

EXPLORING IS FOR EVERYONE



TO BE
TRULY
INNOVATIVE

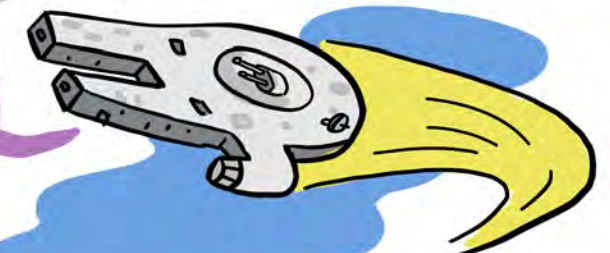
SUSTAIN
EXCITEMENT



LEADS
TO
CREATIVITY

DIVERSITY
OF
WORKFORCE

SPACE IS A
DOMAIN
TO PROTECT



FOCUS ON
NATIONAL SECURITY



HOW TO GROW
THE
SPACE ECONOMY
TODAY!

CONSTANCY
OF
PURPOSE

KEEP
THE
PLOT



BE
DARING



GETTING OUT
OF OUR
COMFORT
ZONE!



SUSTAINABLE
PROGRAMS



OBSERVATION
AS A GLOBAL GOOD!

BRING IN
NEW SECTORS



IT'S THE MOST
EXCITING TIME
IN SPACE!

INSPIRING A
NEW GENERATION



GIVE
EVERYONE
ACCESS
TO SPACE!



WE'VE SEEN A
NEW FORMULA
FOR SUCCESS

$$E=MC^2$$

DEMOCRATIZING
SPACE



EVEN
MORE
THAN
THE
1960'S



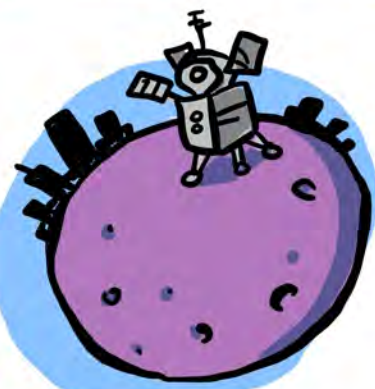
the
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VISUAL COMMUNICATION SOLUTIONS

THEME:

**BUILDING OUR
OFF-WORLD
FUTURE!**

**ASCEND
BY THE
NUMBERS**



**ASCEND
NOVEMBER PROGRAM**

OVER 200 SESSIONS!

**OVER 3,000 TOTAL
REGISTRANTS**

ORGANIZATIONS: 1,293

**COLLEGES
& UNIVERSITIES: 242**

**33 COUNTRIES
ON
6 CONTINENTS!**

**LAUNCHED
16-18
NOVEMBER 2020**



ASCEND

**ACCELERATING
SPACE COMMERCE
EXPLORATION**

**AND
NEW
DISCOVERY!**

**2021 ASCEND..
15-17
NOVEMBER
2021!**



**LIGHTNING
TALKS**

ROUNDTABLES

WORKSHOPS

PANEL DISCUSSIONS

KEYNOTES

**FIRESIDE
CHATS**

**DISCUSSION
GROUPS**

**TECHNICAL
PRESENTATIONS**

**AND
Q&A**

**TYPES OF
SESSIONS**

**OVER
6,000
UNIQUE REGISTRANTS!**



**ASCEND
XSERIES**

**MAY-OCTOBER
2020**

11 EVENTS

SUMMITS -3

WORKSHOPS/CO-LABS -2



WEBINARS -6

**MEMBERSHIP
BREAKDOWN**

**37%
AIAA
MEMBERS**

**63%
NONMEMBERS**



**the
sketch effect!**
VISUAL COMMUNICATION SOLUTIONS