

Saber Astronautics Survival Guide

Introduction

Welcome to Saber USA! This document should include what you need to know in order to survive your first couple weeks with our team.

One of the first tasks you will need to do is meet with Lynda, our bookkeeper, to fill out some paperwork for your employment. Your hiring manager will start the process of introducing you two and getting a time set up to accomplish this task.

Saber USA Mission

Saber Astronautics is a Space Engineering company with two offices in the USA: Boulder & Colorado Springs and two offices in Australia: Sydney & Adelaide.



We work on a variety of projects from space <u>mission operations software</u> used by both commercial companies and the <u>US DoD</u>, to satellite <u>deorbit hardware</u>, and have even created the world's first <u>Space</u> <u>Beer</u>! If it's space centric and it's fun, then we'll do it.

Oh, we also game... A LOT.



Accounts

All Employees: Your hiring manager will have started the process to get you set up on Saber specific accounts, including a Saber Gmail account, Slack, and Saber Jira. Your hiring manager will add you to the team's WhatsApp channels.

Space Cockpit Team Accounts: Your hiring manager (Nathan), or your project manager (Max or Victoria), will help you get onto PlatformOne to get your Space CAMP and P1 accounts set up. Follow the below instructions to get access to Platform One's domain for Jira, Confluence, and Mattermost

- 1. Platform One SSO Registration Link
- 2. Space Cockpit / Space CAMP Jira and Confluence
- 3. Platform One Mattermost

Meetings

Daily:

- Saber Team Standup @ 8:45 am (MST): In this meeting we individually discuss the tasks we will be taking on for the day.
 - https://zoom.us/j/5944447938?pwd=V0JIQi9SYmYvbHVnbkVzSjI3QXZndz09
 Password: saber
- *If on the Space Cockpit team as PM or Designer:* Space CAMP Standup @ 9:00 am (MST): This meeting is to discuss the current state of operations within Space CAMP and PlatformOne. Your first day in this meeting, you will introduce yourself in the "New Faces" portion of the meeting.
 - https://us02web.zoom.us/j/81710507388?pwd=QmU0VUFvY3VjWS9zTVF4eVNXQUd1UT09
 Password: CAMP

Weekly on Tuesdays (as needed):

- *If Space Cockpit PM, Designer, or developer* Space Cockpit IPM @ 9:30 am (MST): This meeting is to discuss the backlog for Space Cockpit and identify which tasks will be tackled for that week and what their complexity is.
 - https://zoom.us/j/5944447938?pwd=V0JIQi9SYmYvbHVnbkVzSjI3QXZndz09
 Password: saber

Weekly on Fridays:

- Saber Team Retro @ 2:00 pm (MST): This meeting is to look back at the last week and discuss things that went well or didn't go well. Through discussion, we identify action items to address the things that didn't go so well.
 - https://zoom.us/j/5944447938?pwd=V0JIQi9SYmYvbHVnbkVzSjI3QXZndz09
 Password: saber



Important contacts

Position	Name	Contact Info
Chief Executive Officer	Jason Held	jheld@saberastro.com
Saber USA Director	Nathan Parrott	nathan.parrott@saberastro.co m
Space Cockpit Project Manager	Max Blake	max.blake@saberastro.com
Human Factors Engineer / Internship Manager	Victoria Brazell	victoria.brazell@saberastro.com

Communication channels

Mattermost: For communication regarding Space CAMP and PlatformOne specifics and **ALL** Space Cockpit conversations (we *cannot* use other chat channels for Space Cockpit specific talk).

Slack (https://saberastro.slack.com/): Mainly used for communicating with the Australian branch, and PIGI discussions.

How to get paid

Lynda will get you set up with the correct billing and timesheets software based on your type of employment.

Contractor: Timesheets and Bill.com

Full-time and Interns: Clockify

Any questions regarding payment should be directed to Lynda Johnson: lynda.johnson@saberastro.com

Timesheet Cheat Sheet

- 1001 Polaris
- 1002 AFWERX2
- 1003 LEA
- 1004 LUNINT
- 1005 OCX
- 2001 DragEN



- 2002 I-Corps
- 8000 Sentinel
- 9000 Sales & Marketing
 - for time spent researching market possibilities, traveling and meeting with potential customers not connected with a specific bid effort.
- 9001 Bids & Proposals
 - o for time spent researching, writing and submitting specific proposals, may include travel time for meeting with the potential customer to clarify bid parameters.
- 9002 Indirect Support
 - o for time spent doing the work of the company that cannot be attributed to a specific project, such as time for team meetings benefiting multiple projects.
- 9003 Finance & Admin
 - o for time spent in business administrative or financial tasks.
- 9004 FTO
 - Flexible Time Off, used for vacation, appointments, sick time, etc.
- 9005 Holiday
 - used for scheduled and floating holidays, entered as 8 hrs per day taken.

Project specifics

PIGI is our commercial space operations software used to provide total Space Domain Awareness (SDA) and is currently used in the Australian Space Agencies Responsive Space Operations Center in Adelaide. If you're working on the PIGI team you will be thrown onto the forefront of mission operations and Space Traffic Management and gain experience with live space operations.





SpaceCockpit is designed as the military counterpart to PIGI and is currently deployed to tactical wings of the US Space Force. Our first and primary customer is the 460th Space Wing commanded by Col Pepper. Operators of the 460th Space Wing command the Space-Based Infrared Radar (SBIR's) constellation of satellites. They have very good control of their spacecraft but lack tools for providing them with situational awareness (SA). SpaceCockpit is a web-app designed in Unity and deployed via Web-GL that can be loaded up in any web-browser.



For Official Use Only (FOUO)

Introduction to Space CAMP & PlatformOne (P1)

Space CAMP (Commercially Augmented Mission Platform) is an application development shop. Several applications are under development at Space CAMP, and most are contracted for the NSDC (National Space Defense Center). Saber Astro's Space Cockpit team sits at Space CAMP to develop our application. Space CAMP (and subsequently its platform, PlatformOne) support the product teams and help them be successful. Read more about Space CAMP at the link below (only accessible once you get your P1 SSO account set up):

<u>Space CAMP Survival Guide</u> <<<< Will be updated *very* soon

Meet the team

Space Cockpit Team

Position	Name	Contact Info
Project Manager	Max Blake	max.blake@saberastro.com
Game Designer	Doug Jacob	douglas.jacob@saberastro.com
UX Researcher	Claire Yeash	claire.yeash@saberastro.com
Graphic Designer	Clint Hamilton	clint.hamilton@saberastro.com
Anchor Engineer	Jeremiah Nunn	jeremiah.nunn@saberastro.com
Programmers	Jeremiah Nunn Ryan Davis Doug Jacob	jeremiah.nunn@saberastro.com ryan.davis@saberastro.com douglas.jacob@saberastro.com



	Andersen Pinckney Zachary McClure	andersen.pinckney@saberastro.com zachary.mcclure@saberastro.com
Quality Assurance Analyst	Rheanna Barr	rheanna.barr@saberastro.com

PIGI Team

Position	Name	Contact Info
Lead Programmer	Keenan Thrungtrakul	keenan.thrungtrakul@saberastro.com
Programmer	Connor O'Keefe	connor.okeefe@saberastro.com
Quality Assurance Analyst	Rheanna Barr	rheanna.barr@saberastro.com

Acronym Cheat Sheet

Below is a list of common acronyms you might hear in your first few weeks. If you hear something you don't understand, please just ask anyone on the team.

Acronym	Meaning	Details
SBIRS	Space Based Infrared Sensor	The SBIRS satellites are the primary satellites the 460 th SW is in charge of.
		You'll hear this pronounced as "sibbers"
SBIR	Small Business Innovation Research	This is the contract Saber is under to create Space Cockpit.
		When people talk about this contract, they pronounce it by each individual letter.
SDA	Space Domain Awareness	The AF defines SDA as identification, characterization and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy or environment of our nation
TLE	Two Line Element Set	The name of the most commonly used "coordinate" system for satellite locations in space.



NSDC	National Space Defense Center	An organization with the Air Force and Space Force that handles a good portion of the space operations for the military.
MVP	Minimum Viable Product	A term to describe a preliminary version of a product that allows a team to address the maximum amount of validated user value with the least effort. This term is also used on this team to describe a solid "first pass" at a feature.
OODA Loop	Observe, Orient, Decide and Act Loop	A four-step approach to decision-making that focuses on filtering available information, putting it in context and quickly making the most appropriate decision while also understanding that changes can be made as more data becomes available
HVA	High Value Asset	Represents space objects that are of particular importance to an organization
POL	Pattern of Life	POL refers to an objects typical or normal behavior. When an object does something that is outside its POL, it may allude to it entering a threatening posture.
ASAT Threat	Anti-Satellite Threat	Typically refers to a threat from the ground to a satellite
UDL	Unified Data Library	Data repository from multiple sources that is used for the satellite Catalog in PIGI and Space Cockpit

Orbital Mechanics resource videos/study material

Orbital mechanics intro video from NASA:

https://www.youtube.com/watch?v=Am7EwmxBAW8

Links to Individual Role Specific Onboarding Documents

Project Manager

UX Researcher

Designer - Doug



Developer - Jeremiah or Ryan

Intern - Victoria or Connor

PlatformOne Links

Code1 - GitLab Code Repository.

https://code.il2.dsop.io/

This is where your dev-team product code lives. It is also where you build out your CICD Pipeline.

Registry 1 - Docker Hub

https://registry1.dsop.io/

Containers go through the container hardening process and approved by Nick Chalon for ATO. They are then available to be pulled from registry1.

Ironbank

https://ironbank.dsop.io/

Ironbank sits behind Registry1. It contains the .tar files for the hardened containers. Easiest to use Registry1 if you're a dev-team. If you need additional info on a hardened container (Anchore, Twistlock, etc), then using IronBank may be useful.

Repo - 1

https://repo1.dsop.io/

You won't see product team code in here, but you will probably see an ISTIO project and in that project are the files needed for the hardened containers related to that project.

PlatformOne Service Desk

Lodge support tickets here

https://jira.il2.dsop.io/servicedesk/customer/portal/1/group/38?groupId=38

Project Management

Create your PlatformOne Login

https://login.dsop.io/register

Allows you to create your P1 Single Sign On (SSO).

Login to PlatformOne SSO

https://login.dsop.io/



If you are logged in then it lets you modify some KeyCloak Settings. You may be redirected here if you try to hit the other .dsop.io domains and aren't logged in.

PlatformOne FAQ

https://sso-info.il2.dsop.io/

Help with getting setup on P1.

JIRA

https://jira.il2.dsop.io/

Jira is a project management tool used for tracking projects.

Chat - Mattermost

https://chat.il2.dsop.io/

This is our chat platform, for the memes.

Confluence

https://confluence.il2.dsop.io/

Used for documentation for projects