MAPS in a nutshell

This needs to be amended so that it reflects the contract admin functions MAPS serves

How OPRE records and tracks spending so that it can balance its checkbook and plan its budget every year

Built in 2012, in production in 2013

"MAPS is the functionality that allows the CORs to not have to keep track of their records and free them up to manage their different projects."

EXCEPT: CORs are keeping their own Excel trackers anyway. They need MAPS to pull info inputted by budget team. And they need to enter info into MAPS for budget team's use.

"Things" that move money in government that need to be managed

Managed by MAPS by design

- Contracts — All management done in MAPS
- Grants — Only making sure the dollars are correct. Grants Solutions is where all the management occurs.
- IAAs — Mostly admin in MAPS.
- Direct Obligations — Budget officers only input these items
- Projects — Allows management of budgets across different vehicles

New to MAPS, managed with workarounds

- Assisted Acqs — New type that is funded by IAA but is managed more like a contract
- IPA — New type. Another type of IAA, to pay for details
- IDDA — Inter-Department Delegation of Authority
- JFA — Joint Federal Acq

Users / Responsibilities

Users		Responsibilities
Project Officers	Non-CORs / Contractors	Similar to CORs, except they can't authorize invoice payments. Let COR know when invoices are ready to go.
	CORS	Serve as project officers, coordinating and overseeing research activities, disseminating work. Write SOWs, award contracts. Direct and review contractor's work & deliverables. Liase between program office and contractor. Track budget and compare vendor records to OPRE records. Input and allocate invoices. Process modifications (inc dates to be exercised by).
	Team Leaders	Track annual spend against appropriation/budget for multiple projects (make adjustments as needed), plan budget for following year. Plan research activities based on available and projected budget, sometimes coordinating with other offices or agencies. Disseminate deliverables and findings. Can sometimes also be the Project Officer for individual projects.
	Division Directors	Supervise staff in division, oversee team of CORs, and oversee portfolio of research projects. Review and approve new contracts, requisitions, mods. Budget oversight and management to direct and forecast spending (research activities) across projects over the year / multiple years. Account for every penny for the current fiscal year.
	Sys Admins	Manage list of vendors, agencies, CANs, alert messages, grid subscriptions, milestone lists (Resources). Manage project list and contract/grant names (all entity names). Roles and permissions
	Budget Officer	Financial amounts (no one else can change dollars). Forecast spending (e.g., based on upcoming mods). Reporting, queries, tracking of office-wide spending (pull grids)
	System Owner	Manage ATO paperwork, security documentation & signatures. COR on the contract. James can't do work unless the request comes from the COR. Prioritizes work for vendor, stipulates requirements.

Work done in MAPS

- Contracts Admin
  - Pre-Award: Solicitation process; Document procurement actions
  - Post-Award: Enter invoices; Upload invoices; Allocate to CAN & CLIN (budget line); Authorize invoices
  - Mods: Process mods; Document milestones, updates; Exercise options
  - Misc: Historical info (e.g., old mods, invoice history); Check key dates (e.g., POP end); Check key amounts (e.g., how much is left)
- Budget Management: Track annual spend; Modify budget to support new projects or activities or cover projects that are over budget; See what funds we're expecting (e.g., via mods); Grid; All Budget Report for Fiscal Year; Project Budget by CAN; Maintain eye on grants; Contracts Admin; Input new contracts / AAPs; Upload supporting docs; Check on procurement progress; Update with final budget and approval letters; Request new Budget Lines; Review monthly invoicing
- Budget Management: Look at projected spending in a particular area; Review current year spending; Multi-year report by CAN; Project Budget by CAN; Contracts Admin; Approve requisitions, mods, exercising options; Approve changes to budget lines; Review and approve solicitation docs; Pull up examples of previous contract language to reuse; Check when contract is ending, how much money is left, when was last mod
- Add people to a project; Change person's role; Activate account; Errors & bugs; Create new contract; Create and share grid profiles
- Procurement milestone tracking; Invoicing, requisitions, budget execution; Data requests (e.g., all contracts and dollars for this vendor); Enter requisition and automatically send email to COR; Update a budget line; Update contract; Go into Grant Solutions to release funds; Add IAA info to MAPS; Export IAA info to populate 7600B; Go into different systems to make payments

Time in MAPS

- Sporadic; Monthly (invoices) ++; Most days +; Multiple times a day
- Short bursts of activity (5-15 min) +; I try to limit how often I go into it
- Varies: sometimes daily, sometimes not very often; Weekly on average; Varies: Sometimes multiple times a day, multiple days a week, or I can go a month and not be in it; I'm in there for minutes to an hour; I'll have it open for hours because I need to keep referencing quick things; 10-15% of my time goes to budgeting and invoicing on average
- Weekly or monthly depending on time of year; Daily at the close of the fiscal year; Every day or several times a week
- All day every day

Work done outside MAPS

- Shared drive: Records management; Deliverables management; Paper trail (progress reports, invoices, meeting notes); Track timelines and deliverables; Review quality of work; Verify spending against progress reports sent by vendor
- Emails: Informal review of invoice with vendor prior to formal invoicing that cc's PSC; Vendor emails "final" invoice to multiple addresses in OPRE and PSC; Send preliminary invoice data and progress reports to CORs, collect responses; Non-CORs get permission from COR about invoice allocation; Send email once funds allocated asking for authorization; Approvals, requests to contracting shop
- Excel: Reviewing budget; Planning budget; Checking for discrepancies between vendor records and OPRE records; Tracking fees; Tracking dollars down to the cent; Calculating percent allocated / remaining; Task-level granularity for allocations; Annotating numbers (e.g., noting reasons for change); Noting expected changes to numbers; Projects involved with but don't "own"
- Project review: Decisions about study design, outputs; Approvals; Coordination with other offices; Coordination with grantees; Note: not restricted to contract activities (also grants, etc); Review of dissemination products
- Emails: Request PSC #; Forward Req from MAPS to supervisor, who then sends to OPRE Requisitions, which somehow gets to PSC; Make sure project officers are keeping MAPS up to date
- Excel: Managing budget; Similar needs as CORs; Tracking MOU amounts; Aggregating by portfolio
- Planning budget: Tracking multiple years; Experimenting with different allocations

Usage statistics

- 158 registered users, of which about half (76) have a status of "active"
- About 70% (54/76) of active users have logged in in the past 5 days, 85% (65/76) in the past 30 days, and almost all (72/76) in the past 60 days
- CORs (29/76) and non-COR/Contractors (20/76) are the primary user roles
- CORs are most likely to be logging in daily, Team Leaders are most likely to be logging in weekly (assuming this data is representative of any average point in time)

MAPS Use Cases *In Progress...*

- See projects I am assigned to
- View contracts; View mods; Update mod milestones
- Input invoices; Allocate invoices to CLINs
- Run reports on budget by CAN
- Authenticate; 2FA; Assign or restrict functionality to certain users or profiles
- Send emails: With attachments
- Store files

What works well

Product Functionality

- **So much better than the alternative:** This is lightyears ahead of usability and functionality compared to what we were doing before; What we did to track invoices before MAPS was horrible; I heard enough about the process before MAPS that I know how great a system this has been; I remember when we were faxing typed pieces of paper for our budget work; We used to be buried in paper and emails, basic spreadsheets were hard to control; MAPS is a great improvement over doing invoices and requisitions by hand; Thinking about a time without a system like this is inconceivable; More streamlined than the alternative; More consistent experience / process; It's a nightmare to think about working without MAPS; From what I've seen from the previous office I came from, all those acq pieces, you had to send diff docs to diff people, the logistics and coordination are much more complicated, and you have to do more steps as a COR in terms of the submissions process in terms of invoices. More logistically complicated, things are more likely to get lost.
- **Helps me do my job:** MAPS is an extremely useful tool; The functions it provides makes my job a lot easier; It's a helpful interface to have; It functions; It's the truth for our budget; It organizes information in a systematic way across different projects; MAPS is a one-stop shop in making sure the overall budget reflects what we planned to do; I wouldn't want MAPS to go away; I really like MAPS; I don't think there's anything I'm not getting
- **Grateful for the investment:** I love that OPRE invests a lot of time, energy, and money into these kinds of resources that support us; Budget team has done a lot to improve this over time
- **Useful functionality**
  - Grids: You can basically search by any criteria in the Grids; The kind of information you can get from the Grids is really helpful
  - Invoicing: Invoicing pop up is fairly standard once you know what everything is; Relatively easy to pull up invoicing form
  - Pull up info: I like that I can check how much money is left or when the contract ends without bugging my COR; It's easier to find contract docs in MAPS than in our shared drive
  - Automation: Validates data entry, warns you when numbers don't add up; System spits out emails to the necessary people
  - Help docs: As an occasional user, that help section, those tutorials are really helpful to remind me how to do things

What could be better

UI / UX / Visual Design

- **Not intuitive:** Not very intuitive; See also Milestone workflow notes; Can't figure out how to do things on my own; See also grid report notes; Some of that is the acq process & language, not the system
  - Hard to get self-serve help: Help documents not as helpful; I don't think people go to the docs very often; Help docs missing key docs to explain basic functionality; Help docs not organized by user workflow topics; Trainings hard to retain, esp before using the system regularly; Faster to ask someone to walk you through than dig through docs; I don't know that we need so many docs; Documentation is really outdated; I don't know if anyone is getting training anymore because I get asked a lot of basic questions; Looking up information is really difficult; Unclear if docs are up to date; No idea how old these are, some look really old; I ask a colleague or go to our sharepoint instead
  - Wish it were a smoother, more intuitive application; Wish you could master it in minutes; It isn't as intuitive; It took over a year to feel comfortable using MAPS; Have to seek help when I need to do something; I have to have help docs open at the same time
  - When I first started, it was super hard to understand; MAPS is intimidating when you first start; Newer staff don't know how to use it; New people say it's not user friendly and it's difficult to navigate; It's not practical for Sheila to have to sit down and train every new user; I spend a lot of time explaining to project officers how to use MAPS
  - If you don't use it enough, it's not super intuitive; Not straight-forward or self-explanatory; I didn't understand why certain things needed to be clicked, had to hear it twice; Hard to know what a lot of things are or how to use them; Hard to remember how to do things, where to look; Hard to figure out where to go to do something
  - "I have no idea what this is"; I don't know what this is and I don't ever really use it; It's not obvious how to do things
- **Dated UI:** Nicer UI; Looks dated; Wish it looked like modern software I'm used to; It looks kinda ugly to me
- **Confusing / unclear:** Hard to tell which fields you can edit and which you can't; Can't right-click on a link to open it; Terminology in MAPS doesn't line up with invoices; Unclear which invoice number or date to enter; Inconsistent language on different screens / sections of MAPS; IAA form has changed but MAPS hasn't been updated to match; I forget which things I can do and which things only C or S can do
- **Cluttered / noisy:** Unimportant info takes up a lot of premium real estate; (See also comments about dashboard); (See also comments about Project list); Budget lines that are created "just in case" -- it's just more noise unless I need it; There are dropdown values we don't use anymore but they're still there

Workflow Improvements

- **Too much friction:** A lot of clicks and friction; Some of the things you most need to do aren't right on top or big; Shortcuts on home page to jump to common functionality would help; If I want to look something up quickly, it just takes a little too much effort; We don't update our milestones as often as we should because it takes so long, so many clicks; Lots of scrolling back and forth, esp if I have to have invoice open at the same time; It's just clunky; There's so many steps with each process; Lots of steps and it can get confusing; Would be nice to make it simpler
- **Reqs / AAP / Mods / Milestone workflow is difficult to use:** Not streamlined; All these steps; It took a year and a half to learn the process; Simplify this process please!; I have to remind myself every single time what I'm supposed to do; Milestones functionality not very clean; Doesn't always pre-populate accurately; Not a lot of space to capture notes / comments; I find this very confusing; Unclear what the values mean, what you're supposed to select; I don't know what any of these dates are; The milestone numbers are so tiny; It's not clear you need to click on these, that there's something there; Hard to know what's important, what to pay attention to; Not sure what to put in for some of these fields, so I just select <this one> every time (e.g., Req Type); I have no idea what values to select for some of these things; It's very hard to do; I never remember that I have to have a PSC number before I create an action; It's confusing that there are two different AAP numbers; There's a lot of detail that isn't very clear; No visual indicator of which milestone you've selected; I was told there's milestone tracking in MAPS, but I didn't know and couldn't find it; It's not user friendly
  - Milestone workflow not aligned with user needs: 6 steps don't align with reality; Each CO has a different process; Comments section becomes a log, more useful than the milestones; The actual useful information is in the Comments box; Can't comment on a specific step
- **Sorting:** Not logical how the CLINs are sorted; Would be better if related CLINs sorted together, alphabetical order isn't helpful; CLINs don't sort in a useful way, want main CLINs at top, related CLINs together; Helpful to order CLINs by how they're put on the invoice; You have to be very careful to make sure you find the right CLIN; CLINs are not in numerical order, need to double-check I selected the right one; Sometimes there are so many CLINs it's too hard to tell anything; Not all fields are available to sort by; Sort by fiscal year doesn't sort properly; Doesn't feel very organized; Feels like a data push and then I have do a bunch of additional work on it; Want to sort by Funds Expire On; Can't sort invoices by date; Can't sort mods by date
- **Dashboard isn't useful:** Dashboard isn't intuitive; Don't use it; Takes up most of the page; Tells me very little; I don't find it very helpful because I don't know what I'm supposed to do with it; I honestly don't know what these things are; I ignore this basically; I suspect people gloss over the dashboard; Stuff lingers even when there's nothing more to do; Stuff that's rejected stays, don't know how to remove
  - Other info would be more useful in dashboard: Would like dashboard that tells me when approvals have gone through; Wish it showed mods in the works, status; Milestone dates; Flag things that need to get done by end of fiscal year; Procurement Team has to do a lot of work because things aren't flagged for me; See also "More automation" section
- **Project list is difficult**
  - Can't see all the projects I care about / Permissions: I don't have access to all the projects in my portfolio; Projects that are co-funded by another program or office aren't visible to me, even though they're part of my budget; For co-funded projects, I can't see how a change to my budget line affects the other budget; There are projects I don't work on and can't access, but they're part of my portfolio and I'm responsible for them; Have to email people or sift through grid reports to get info about projects I'm responsible for but am not the project officer for; I can't see all the projects my team contributes to if they're housed in another division, even though we have money in that contract; If I'm out, my deputy can't cover my projects because they don't have access to my projects; Miss being able to see other people's projects, was sometimes useful to look at how they did their contracts
  - I see projects I don't care about: I see lots of projects even if I don't work on them anymore because I was once added to them; Project includes contracts that ended years ago, as well as contracts that are current. They're all grouped together
  - Project names are not intuitive: I forget what we called projects, so I can't find them and need to email someone; I wish I could change the Project names myself; Projects in MAPS are groupings created by Sheila, don't align with "projects" as others think of them; No standard naming conventions
- **Reports and grids and lists don't give me what I need:** Totals aren't displayed; Can't group; Often in a high-pressured meeting and have to calculate on the fly, can miss some lines, get it wrong; Reports don't let me see multiple years by project; Reports don't let me see multiple CANs together; Grids include a lot of information I don't need; Grids are harder to read; Reports don't download as CSVs well (formatted terribly); I have to run this big long report when all I care about is one line at the very end; I want to see all the charges between this date and that; I want to be able to manipulate and visualize the data more so I don't have to do it in Excel all the time; Exports can be glitchy (because of things like quotation marks); Need to ask Sheila to create saved grid profiles. Can't create my own; Project Budget by CAN report isn't pre-filtered to the user's CANs; See also "More granular budget tracking"
  - Excel workarounds are needed: Everyone has created their own Excel tracker to do their work. Only use MAPS to enter and pull data; I can't see the full costs in MAPS (e.g., fees) so I create my own tracker; I want to track charges by task; I can't see the views I want in MAPS so I create my own tracker; Grid output can be so hard to read and millions of rows, so I end up pulling individual reports and putting them together in Excel; I have to run different reports for the current year by CAN then combine them in Excel; Easier to pull up bottom line numbers in my tracker; For budget planning, I want to see original amount and planned amount so I can play around; I want to see percentages; One of my saved grid profiles stopped working for some reason. It was easier to create my own tracker than ask to fix it; I can't add notes to the reports or grids in MAPS; Can't flag when things need to be changed in MAPS; Excel is brittle: Need to recreate my spreadsheets every time I pull new numbers from MAPS; Projects change all the time. I have to go into MAPS periodically and make sure my spreadsheet matches up with the changes that have been made
  - Hard to know how to use: Took some learning to figure out how to use the Grid reports; Needed Sheila to walk me through how to use the grids; I have no idea what the different Grid types are for. I only use one of them (all budget); I can never figure out how to pull what I want, even after Sheila showed me; With the grid, it's hard to remember the naming, the acronyms, so it's hard to configure; I don't even know what all these reports do; Hard to remember which report; Hard to know which report for which purpose
  - Can't see what others see: I don't have access to grids but my direct reports do, so I can't help them or see what they're looking at
- **Workarounds:** I hope we'll have fewer workarounds; Don't have functionality to support for multiple contracting offices; Have to use workarounds to track agreement types we didn't plan for initially (e.g., assisted acqs)
- **Not sure if MAPS is up to date:** I have to hound my project officers to get CLINs updated; I have to work with project officers to make sure they're keeping MAPS up to date; Someone has to ask C or S to make updates, and they're not asking. It's an extra step; I have to work with C or S to get things updated; Why do C or S have to be the ones to input this information?; Why is it only the project officer who can make the request?
- **Managing permissioons:** See also "Project list" notes; I don't have access to grids but my direct reports do, so I can't help them or see what they're looking at; When we change someone from non-COR to COR they lose all their projects and we have to manually add them back to their profile
- **Misc:** Sometimes clicking doesn't work, randomly; Sometimes slow, have to log in at night; Allocate to CANs by percentage rather than dollar amount; Can only upload one file for an invoice, but sometimes I need multiple files (e.g., invoice and progress report or correspondence from vendor); Indirect rates would be nice; Would be nice to be able to store approval letters for indirect rates, attach to invoice; More ability to do things yourself rather than have C & S do it

New functionality

See also "Work done outside of MAPS" for more opportunities

- **More automation:** Alerts; Notifications; Reminders (e.g., update your milestones)
  - Emails and approval actions: Automating emails requesting authorization (non-COR to COR); Once I allocate an invoice, MAPS doesn't tell me when all the approvals are in, when the invoice is paid; Confusing what happens after I authorize an invoice -- "black box"; Lots of back and forth -- in and out of the system and handoffs between different people; Could approval actions be tracked in MAPS rather than through emails?; When we're submitting a req the PO submits a req and MAPS emails the PO immediately and the PO has to forward to the supe and the supe has to email back to S & C. That has to happen for every single requisition. Is there like a daily....? Supes get like 8 million emails a day. If there was something that could lessen the burden of having so many steps for that kind of thing, like clicking a button in MAPS to register your approval. Acknowledging the approval.; It's probably not an optimal solution that they submit the req in MAPS, which sends them an email, which then they forward to me. The system doesn't notify me, things can get lost in email. I will cc them when I approve via email and forward it on
  - Budget concerns: A significant source of frustration is to go into MAPS to check on something and find that a change was made without notice (e.g., change of fee); Changes to CANS as a result of changes to shared costs / fees that are entered by budget office; When a project is over budget or when 75% of funds have been spent; When are we running out of money, need to do a mod, exercise an option, etc; When are budget lines expiring
  - Regular tasks: Prompt project officers to make updates, fix errors
  - Manual processes: Invoices are sent via email and have to be manually entered into MAPS; Request to add or change a contract is entered via spreadsheet and emailed to Sheila; Grants Solutions sends Sheila spreadsheet templates to enter Grant estimates and finals into MAPS, and then Sheila goes into Grant Solutions to release funds; IAA info is sent to Sheila by email to add to MAPS
- **More granular budget tracking**
  - Display fees: MAPS doesn't track fees; One of the biggest things I struggle with is that the reports are missing fees; Can't tell when a fee has been paid or how much it was; Without fee info, can't diagnose discrepancies between MAPS and trackers; Fees end up in totals, but I need to track separately; Not seeing fees in MAPS has sometimes led to me misreading how much money we have left; Shared costs / fees can change in the background
  - Track spending by task: MAPS doesn't track invoices by Task, but I like to do this
  - Enable checking for vendor discrepancies: Checking whether vendor amounts match our amounts
  - Distinguish budget lines for gov't reporting: Identify each budget line as new or existing and what type of research (applied vs evaluative) to make gov't reporting easier
  - See also Report / Grid / List improvements and workarounds
- **Cover more of the contract management lifecycle:** One-stop acq portal, including maintenance of records, budget, tracking deliverables; I have to reference progress reports as part of invoicing, but those are stored elsewhere; I go back and forth a lot between MAPS, invoices, my tracker, and this other place where we track anticipated changes to invoicing; "all the contract approval steps in the system as opposed to having to send out additional emails and waiting on their approval"; Track individual deliverables??
  - Close out: We have ways to close out contracts in MAPS but we haven't really done it
  - Or not...: I see MAPS as related to contract administration, which is very separate from my project management work (e.g., study design); In my mind, MAPS is purely for budget; MAPS is for records not execution
- **More flexibility to handle additional procurement / agreement situations:** Multiple procurement shops; Assisted Acqs; IPA; IDDA; JFA

User engagement

- **Users not engaged in providing feedback:** Don't know how to request changes; Hadn't thought about it; I don't know; Email or talk to MAPS team; Takes too much time to relay this, easier to just deal with it; I don't; I probably just wouldn't say anything; Not really; Nowhere to submit feature requests; Nowhere to track requests; Nowhere to track plan or status for improvements

Back end

- **Concerns about the quality of the back end, which is invisible:** Kezia started flagging what she thought to be concerning things about MAPS in terms of the architecture of the system. Vulnerabilities in terms of not being locked down, things in the code that needed to be tightened up. Led us to realize we did have some concerns about the quality of some of the parts of MAPS that we can't see, that are beyond our comprehension, e.g., data architecture.; Freedom and flexibility to make changes to comply with HHS security and compliance expectations; We weren't able to validate these changes until we had the internal capacity to do so.

Legend: Theme | Sub theme | User feedback | 18F observation