

COPLFR.SAO

This reading is 322 pages, but the important portion is the first 117 pages on the Statement of Actuarial Opinion. The rest is NAIC stuff, including the SSAP's, most of which are listed as separate readings in the syllabus anyway.

Contents

Study Tips

BattleTable

In Plain English!

Introduction

Alice's Gentle Guided Pathway to Learning the SAO

Step 1: Definition of Qualified Actuary (Identification)

Step 2: Disclosures in the Scope Section (Scope)

Step 3: Schedule P Reconciliation (Scope)

Step 4: Type of Opinion (Opinion)

Step 5: Work of Others (Opinion)

Step 6-A: Materiality Standard (Relevant Comments)

Step 6-B: RMAD (Relevant Comments)

Step 6-C: Company-Specific Risk Factors (Relevant Comments)

Step 7: Actuarial Opinion Summary

Step 8: Review Steps 1-7

Alice's Snarky Comments

POP QUIZ ANSWERS

Study Tips

This is the most important reading in the syllabus. If you're covering the readings in rank order, then you'll already have a basic understanding of the SAO from *Odomirok.16-17-SAO*. It is well worth working the old exam problems all the way back to 2012, but it might be a bit much to do this all at once. To start, I would recommend going through this wiki article thoroughly and then doing 1 year's worth (2 sittings) of old exam problems. Then set it aside and go on to the next wiki article, but come back to COPLFR roughly once a week. Each time you come back to COPLFR, review the BattleCards and old exam problems you've already covered before continuing to work your way backwards through the old exams. If you follow this pattern over the course of your study, the SAO questions will seem very easy on exam day!

Estimated Study Time: up to 1 week on your first pass (*this doesn't include subsequent weekly review*)

Pop Quiz: (Click for [answer](#) at the bottom of this article)

- Describe the organization of the SAO (*Statement of Actuarial Opinion*) [Hint: **ISOR + (A,B)**] The answer is at the very bottom of this wiki article.

Source Readings: BattleActs includes all material from past exams in at least 1 of the elements of the system: *wiki articles, BattleCards, BattleTables*. It also covers significant material that has not appeared on past exams but that I've judged to be important. Still, it's a good idea to spend a portion of your time reviewing the source readings. You may have a different opinion on what's important and what you can skip. You cannot read all 2,500 pages in depth, but BattleActs give you the necessary background knowledge so that the time you do spend on the source readings will be **much more efficient**.

BattleTable

We have compiled previous exam questions in a table. You can use this to easily see which topics are tested most frequently.

The tables for COPLFR are the most extensive by a wide margin. Most readings have at most 1 problem per exam, but COPLFR consistently has 4-5 problems on each exam. For that reason, I've separated the tables by exam and placed them all in a separate wiki article.

Standard BattleTables: [BattleTables - COPLFR](#)

You can take a quick look at those now, but I don't think they will be very helpful until you've built a foundation. There is just too much information to absorb. What will be more useful, at least at the beginning of your study, is the link below. I've further condensed all the BattleTables into a **single Excel spreadsheet**. It shows the section in COPLFR that each exam question comes from.

Bonus BattleTable: [COPLFR - Exam Qs by Section](#)

Based on past exams, the **main things** you need to know (*in rough order of importance*) are:

- Relevant Comments: section 5.1-5.3

- (5.1) materiality standard
 - (5.2) company-specific risk factors
 - (5.3) RMAD (*Risk of Material Deviation*)

- Opinion: section 4.3-4.6

- (4.3) type of opinion – *reasonable*
 - (4.4) type of opinion – *inadequate/excessive*
 - (4.5) type of opinion – *qualified*
 - (4.6) type of opinion – *none*

- Opinion: section 4.10

- (4.10) work of others (*disclosures the appointed actuary must make*)

- Miscellaneous: *many other items are asked consistently, although a little less frequently than the above sections*

Alice the Actuary's gentle guided pathway will take you through 1 example of each of the important SAO topics, including but not limited to those listed above. Once you've done that, you must go through all the old exam problems. The questions usually aren't very hard, but it takes time to memorize all the facts **reliably**. The reason this reading comes at the beginning of your study is that it is **by far** the most heavily tested topic. This way, you'll have plenty of time for review between now and the exam.

As you go through these old exam questions, you'll begin to notice they're quite repetitive. The examiners do their best to ask the questions in different ways, but there are only so many different ways you can pose questions on the same material. This topic is **easy points** if you just put in the time. (*Not all the readings are like that.*)

In Plain English!

Introduction

Before we get too deeply into the content, here's an outline for the SAO portion of the COPLFR reading. This is just a condensed version of the *Bonus BattleTable* whose link was given above. The green highlighted sections account for 97% of material on the exam. (*If you're pressed for time, you can probably skip the other sections completely. But make sure you do **all** the old exam problems.*)

Section #	Section Title	Pages	Relative Importance
1	Introduction ¹	1-8	0%
2	Identification Section of the SAO	9-14	6%
3	Scope Section of the SAO	15-31	13%
4	Opinion Section of the SAO	32-49	25%
5	Relevant Comments Section of the SAO	50-85	43%
6	Additional Considerations	86-91	1%
7	AOS (<i>Actuarial Opinion Summary</i>)	92-102	10%
8	Actuarial Report	103-113	1%
9	Resources	114-117	1%

¹ This introductory section has nothing to do with the SAO - it just explains how the AAA (*American Academy Actuaries*) organizes its practice notes.

Alice's Gentle Guided Pathway to Learning the SAO

Alice is out of town at a conference on self-driving cars and has entrusted me to teach you in her absence. (*She's also planning to party hard in the evenings, so we won't be hearing from her for a while!*) We'll proceed in chronological order through the highlights of the COPLFR reading. Recall the memory hint for the organization of the SAO: **ISOR + (A,B)**. Let's get to it!

Step 1: Definition of Qualified Actuary (Identification)

exam Q	(2016.Spring #20) - part (b)
SAO section	Identification section
topic	AA qualifications - <i>definition of qualified actuary</i>
text reference	section (2.1.2)

Part (b): The question provides a definition of "*Qualified Actuary*" that's intentionally incorrect, and asks you to identify the errors. To answer a question like this, you have to have memorized

the paragraph in section (2.1.2) of the COPLFR reading that starts with, "*Qualified Actuary*" is a person..., as well as bullet points (i) and (ii) that follow. Unless you have a photographic memory, you have to figure out a way to break it down to make it easy to remember. I did this by breaking the sentences into meaningful phrases.

The **green font** highlights correct statements that were omitted from the exam question. The **red font** indicates the errors that were intentionally inserted into the exam question.

"Qualified Actuary" is a person who...

meets

...education, experience, continuing education requirements...

of the

...SQS for SAO (*Specific Qualification Standards for Statement of Actuarial Opinion*)...

as set forth in

...the QS (*Qualification Standards*) for actuaries issuing opinions in the U.S...

promulgated by

...the **AAA** (*American Academy of Actuaries*) **not the CAS**...

and is either

(i) CAS member in good standing

(ii) AAA member in good standing **AND has been approved for signing opinions by CPC of AAA (*Casualty Practice Council of AAA*)**

So, you had to recognize that the **red part** should be removed, and that the **green parts** had to be inserted.

Final Comments on Step 1

I have a couple of tricks for memorizing things like this: (*The breakdown above consists of 6 phrases separated by the **bold font** "connector" statements.*)

- I didn't copy the text verbatim. Some portions of the official statement are not important. For example, under the "**meets**" item, the text says basic education, but I shortened that simply to education.
- I also like to reduce long phrases to abbreviations. Under the "**of the**" item, I simply wrote SQS for SAO. The abbreviations are intended as a memory trigger for the words they represent. (*Of course, you then have to remember what the abbreviations stand for!*)
- If I were taking the exam, I would memorize the whole thing, but if you're pressed for time (*or if you just don't bloody well feel like it!*) you can try to guess what the critical elements are. Here, the examiners just wanted you to know who **promulgates** the standards (*it's the AAA, not the CAS*), and that if you're an AAA versus CAS member, there is an **extra requirement**.

Something that threw me on my first reading of COPLFR is that the definition of "*Qualified Actuary*" in section (2.1.2) is different from the "*Qualifications*" of the actuary. The "*Qualifications*" section provides more detail for the terms such as education, experience, continuing education.

Step 2: Disclosures in the Scope Section (Scope)

exam Q	(2015.Fall #25) - part (a)
SAO section	S cope section
topic	items to <u>disclose</u> in the scope section of the SAO
text reference	section (3) - intro

Part (a): This question is straightforward in that it asks you simply to list 4 items that must be disclosed in the **scope** section. It expands on the discussion of the scope provided in Odomirok - The Boring Details. The question asks for 4 disclosures, but there are actually more than 4 possible answers.

The answers provided in Odomirok - The Boring Details were:

- reserve items in opinion
- accounting basis for reserves
- review date
- data sources

The additional answers in the examiner's report are the names of several subsections under section (3) from COPLFR:

- intercompany pooling (*if applicable*)
- evaluation of the data for reasonableness & consistency
- reconciliation to Schedule P
- reviewed methods & assumptions in determining reserves

Final Comments on Step 2

I couldn't think of a good memory trick for this. If anyone comes up with one, let me know, in the forum or in an email. **Update:** BattleActs user Casey posted a good memory trick to the forum '. **I've also reproduced the rearrangement below: [Hint: DREARIRR, pronounced drearier because this list is dreary to memorize!]**

Data sources
Reserve items in opinion
Evaluation of data for reasonableness and consistency
Accounting basis for reserves
Revue date
Intercompany pooling (if applicable)
Revueed reserve setting methods and assumptions
Reconciliation to Schedule P

(Casey scores 10 hit points on the beast!)

You can see from the Bonus BattleTable that the most frequently tested topic from the scope section is **reconciliation to Schedule P**. We'll look at that next!

Step 3: Schedule P Reconciliation (Scope)

exam Q	(2016.Spring #21) - part (b)
SAO section	S cope section
topic	data - <i>Schedule P reconciliation</i>
text reference	section (3.7)

Part (b): This *should* be a straightforward question on the process for performing the Schedule P reconciliation, but there are 2 issues:

- You may not have studied Schedule P, although you probably have some familiarity with it already from your work duties. You can glance ahead at the Organization of Schedule P, specifically the brief summary of the layout of Schedule P - Part 1.
- The other issue is that the relevant section in COPLFR is very wordy. We'll come back to this after discussing the answer to this question.

This question was only 0.75 points but the sample answer for part (b) looks like a question worth 3 or 4 points! I seriously doubt anyone gave that much detail. A better place to look is further down under the heading examiner's report. I think you would get full points just by writing:

- net paid losses must be reconciled
- the reconciliation is done against Schedule P - Part 1
- the reconciliation should be done by line of business & accident year

This is essentially what it says in COPLFR, section (3.7), in bullet points A, B, C:

A: reconcile the given data (*net paid losses in the above exam quesiton*) to Schedule P - Part 1

B: reconcile by line of business & accident year

C: explain any discrepancies

If I were answering this question on the exam, I would list points A, B, C. The part about explaining discrepancies seems important, and was indeed listed as part of the sample answer

Final Comments on Step 3

Section (3.7.1) in COPLFR provides a further discussion that's *extremely detailed*. If this were a less heavily tested reading, I would skip it, but you should probably at least scan it. Section (3.7.2) provides **illustrative language**. This is very important, but in this case, it's obvious and easy to remember. All you have to say is:

→ *I reconciled the data to Schedule P - Part 1 of the company's current Annual Statement.*

If there were no discrepancies, that's all you have to say. If there were discrepancies you need to provide an explanation.

Step 4: Type of Opinion (Opinion)

exam Q	(2014.Fall #20) - parts (a) & (b)
SAO section	Opinion section
topic	SAO - type of opinion
text reference	section (4.0) & (4.3) – (4.6)

Parts (a) & (b): This is a great question for learning about the main part of the SAO. The question provides 4 scenarios and asks you to state the type of opinion. First, recall from the table in Odomirok - The Boring Details the 5 possible types of opinion: *R, I, E, Q, N*.

Reasonable: recorded reserves are WITHIN actuary's reasonable range of unpaid claim liabilities

Inadequate: recorded reserves are BELOW actuary's reasonable range of unpaid claim liabilities

Excessive: recorded reserves are ABOVE actuary's reasonable range of unpaid claim liabilities

Qualified: actuary is UNABLE TO ISSUE an opinion on certain material items (*reserves could still be within actuary's range*)

None: actuary is UNABLE TO CONCLUDE that reserves are reasonable

So, you have to match each scenario to the correct type of opinion. There are no tricks – it's completely straightforward. Give it a try before looking at the answer!

Final Comments on Step 4

Sometimes, in addition to stating the type of opinion, they also ask you to propose language for the opinion. This is similar to **Step 1** above in that you have to have memorized the appropriate **illustrative language**. We touched upon this in the table in Odomirok - The Boring Details.

The opinion must start with:

→ *In my opinion, the amounts carried in Exhibit A on account of the items identified...*

Then there are 4 parts as described in the introductory part of section (4) in COPLFR. The basic language for a reasonable opinion is as follows:

[A] *Meet the requirements of the insurance laws in state X. (insert the appropriate state)*

[B] *Are computed in accordance with accepted actuarial standards and principles.*

[C] *Make a reasonable provision for all unpaid loss and loss adjustment expense obligations of the Company under the terms of its contracts and agreements.*

[D] *Make a reasonable provision for the unearned premium reserves for long duration contracts (and possibly Other Loss Reserve items on which the Appointed Actuary is expressing an Opinion of the Company under the terms of its contracts and agreements.)*

You must memorize this. Of course, if the opinion is not reasonable the language will change. Sometimes the net reserves are reasonable while the gross reserves are not. This must all be disclosed. You should keep section (4) of COPLFR handy as you work through all the old exam problems. Don't do them now, though. Finish the steps in Alice's guided pathway first.

Step 5: Work of Others (Opinion)

exam Q	(2014.Fall #21) - part (b)
SAO section	Opinion section
topic	work of others - <i>disclosures</i>
text reference	section (4.10)

part (b): You can see from the COPLFR spreadsheet of exam questions that work of others is a top exam question from COPLFR. The answer is straightforward; it's a bullet point list from section (4.10.1) about items the appointed actuary should consider when making use of the work of another: [Hint: **P-NEC**]

Proportion of reserves covered by other person's work (*relative to total reserves*)

–

Nature of coverage

Effect of variations in other person's estimates on appointed actuary's opinion

Credentials of other person

The examiner's report gave other answers which weren't specifically from that section of the reading, but were based more on common sense and general knowledge. (*Example: did the other person use reasonable methods & assumptions...*) I like that they accepted these alternate answers instead of simply expecting you to memorize the list in the reading.

Now, to aid your memory and deepen your understanding, here is an extension to this problem:

- For each of the considerations listed, describe an ideal situation from the appointed actuary's point of view.

For consideration **P**, the appointed actuary would like the proportion of reserves calculated by the other person to be small. That way, the AA maintains stronger control over the final opinion. For consideration **N**, the AA might prefer that the other person's analysis was for a short-tailed line like auto physical damage, because the impact of unexpected unfavorable loss development would be smaller, and the AA would not have to review it as thoroughly. For consideration **E**, the AA would like the range of the other person's estimates to be small. In other words, whether the final paid amount is at the low or high end of the range, there would be little effect on the AA's final opinion. And finally, for consideration **C**, it's preferable that the other person's credentials and experience align closely with the work they did.

So, like I said, this wasn't part of the question, but it aids your memory and deepens your understanding to think beyond what was specifically asked.

Final Comments on Step 5

Let's go back to the intro section of (4.10) and note a distinction that could be important. It deals with whether this other person is an actuary or a non-actuary (*like a modeler or a statistician*.) The required disclosures are slightly different. If the *other person* is:

an actuary: disclose → name, credential, affiliation (*within OPINION paragraph*)

a non-actuary: disclose → name, affiliation, type of analysis performed

And of course, this assumes the work is material. (*The text doesn't specifically say that no disclosures are required if the work is not material, but that seems reasonable. Or, at least, the disclosures would be minimal. At that point, it's a matter for the AA's judgment.*)

Step 6-A: Materiality Standard (Relevant Comments)

exam Q	(2016.Spring #24) - part (a)
SAO section	Relevant comments section
topic	materiality standard - propose 3 standards
text reference	section (5.1)

general: The COPLFR spreadsheet makes clear that sections (5.1) & (5.3) are the **most heavily tested** sections from COPLFR. It is practically guaranteed there will be questions on:

- materiality standards
- RMAD (*Risk of Material Adverse Deviation*)

(We will also cover section (5.2), in Steps 6-A,B,C. Section (5.2) covers company-specific risk factors such as catastrophic weather events or rapid growth.)

part (a): We talked a little bit about materiality in Odomirok - miscellaneous. Click the link for a brief review because I'm assuming you already know that material. In particular, you need to know:

- the various options for materiality standards
- how to determine if there is risk of MAD, or RMAD, using the materiality standard

The exam problems are just more examples of the same thing. You guys are smart, Odomirok and COPLFR are well-written, and the examiner's reports have the all the answers. It's just a matter of practice. Note that 2 of the valid materiality standards are based on information we haven't yet covered, namely the RBC or Risk-Based Capital calculation in Odomirok.19-RBC, and the IRIS ratios, discussed in NAIC.IRIS, but don't worry too much about this for now. *(If you want more RMAD practice immediately, check the links in BattleTables - COPLFR. Every exam has questions related to materiality and RMAD. Otherwise, you can circle back after the guided tour when you come back to work all the old exam problems. You're going to do that, right? RIGHT?!!) :-)*

Final Comments on Step 6-A

Did you catch the **error** in the examiner's report. *(It's a small one.)* One of the proposed materiality standards was 10% of reserves. That would be $10\% \times 400 = 40$, but the answer was listed as 25.

Anyway, the only thing to highlight is the *illustrative language* that might appear in the Relevant Comments regarding the materiality standard. But this is another case where the language is obvious, so you really don't have to spend time memorizing it. It could be something like this:

→ *My Materiality Standard for purposes of addressing the risk of material adverse deviation of the Company's reserves for unpaid losses and loss adjustment expenses has been established as xx% of the Company's net loss and LAE reserves, or \$X million.*

The underlined phrases were not underlined in the COPLFR text. I underlined those phrases here because it always helps me better understand a long sentence if I break it into meaningful pieces.

Step 6-B: RMAD (Relevant Comments)

exam Q	(2016.Spring #24) - part (b)
SAO section	Relevant comments section
topic	does RMAD exist (<i>Risk of Material Adverse Deviation</i>)
text reference	section (5.3)

part (b): Here we're covering the sections from COPLFR slightly out of order. Part (b) of the question covers section (5.3), then part (c) goes back to section (5.2). In part (b), you're asked to select one of your 3 proposed materiality standards from part (a). There is no deep reasoning here – they just want you to say something halfway intelligent to justify your selection. You can look at different explanations in the examiner's report. My 3 proposed standards were **40**, **50**, **150**, calculated as follows:

- 10% of reserves = $10\% \times 400 = 40$
- 20% of surplus = $20\% \times 250 = 50$ (*Thx to A.B. for noticing a calc error here! It should now be correct! - Graham*)
- amount of deviation that triggers next RBC action level: (*See also Odomirok.19-RBC*)
 - Let **ACL** = Authorized Control Level, which is given as 50
 - Let **CAL** = Company Action Level. The formula is: $CAL = 2 \times ACL = 2 \times 50 = 100$
 - We're given Total Adjusted Capital = 250, therefore a *drop* of **150** is required for capital to hit the CAL of 100. This drop is the 3rd proposed materiality level.

My final choice: materiality standard = 50

Reason: This is the middle of the 3 calculated. (*Note that the value of 150, based on RBC action level, was much higher than my other proposals and didn't seem reasonable.*)

The second part of part (b) asks whether there is RMAD (*Risk of Material Adverse Deviation*) based on this materiality standard. There is a simple rule for this:

(reserves + materiality standard) < (high end of actuary's reserve range) ==> **YES** (to RMAD)
 (reserves + materiality standard) ≥ (high end of actuary's reserve range) ==> **NO** (to RMAD)

For my choice: $(400 + 50) < 500$ ==> **YES**, RMAD exists

Final Comments on Step 6-B

Let's look at the *illustrative language* for the comments regarding RMAD. The COPLFR reading provides 3 examples of illustrative language and you definitely have to read & study them, but we'll look at them briefly here:

Example 1: RMAD exists

- 1st sentence:

→ *I believe there are significant risks and uncertainties associated with the Company's net loss and loss adjustment expense reserves that could result in material adverse deviation.*

This is boilerplate language.

- 2nd sentence:

→ *I have identified those risk factors as _____, _____, and _____.*

The blanks would contain specific risk items from section (5.2), such as *catastrophic weather events* or *rapid growth*. We'll cover these in **Step 6-C**.

- 3rd sentence:

→ *These risk factors are discussed in more detail in section (5.2) and elsewhere in this opinion.*

This is just so the reader knows there more details are provided elsewhere.

- 4th and final sentence:

→ *Other risks may arise in the future.*

I paraphrased this final sentence, but my short version conveys the same information. (*Good enough for the exam!*)

Example 2: factors that could mitigate RMAD

- This depends on the company, but it could be something like the existence of reinsurance. Just explain it.

Example 3: RMAD does not exist

You would think this would be the shortest example, but it's actually the longest. Here, you explain how you arrived at your conclusion that there is no RMAD. It would basically be just a rehash of parts (a) & (b) of this exam problem: your materiality standard and your calculation to determine whether RMAD exists.

Note that for this particular exam problem there **was** RMAD, so you would have to use the illustrative language from Examples 1 & 2, not 3.

Step 6-C: Company-Specific Risk Factors (Relevant Comments)

exam Q	(2016.Spring #24) - part (c)
SAO section	Relevant comments section
topic	company-specific risk factors
text reference	section (5.2)

part (c): Here, we go back to section (5.2) and cover examples of company-specific risk items that can be used to fill-in-the-blanks from **Step 6-B**. This section is conceptually easy, but requires you to memorize another bullet-point list. Actually, you don't have to memorize every item in the list, and many of them are common-sense anyway.

My strategy for learning a long list is to break it down into manageable pieces, shorten the description of each item, and create a memory trick.

- **Last 6 items (rearranged): DONGAS** (*risk items related to company operations*)

Data (*thin data or unexplained changes*)
Operations (*qualitative changes in operations*)
New (*new products or new markets*)
Growth (*rapid growth in 1 or more business segments*)
Adequacy (*changes in adequacy of case reserves*)
Severity (*changes in severity or frequency*)

Actually, you probably don't even need to specifically memorize these – they are all obvious. You could come up with most of them from general knowledge.

- **Selection from first 10 items:** (*general risk factors that could apply to all companies*)

- A&E losses (*Asbestos & Environmental*)
- catastrophic weather events
- **cyber liability** (*this is very topical*)
- mass torts (*asbestos*)
- constructions defects (*it seems a lot of bridges have been falling down lately*)
- new legislation

You could probably come up with most of these as well. If you read the list once or twice, I'm sure you'll remember enough of them to answer a given exam question.

So, having covered the risk factors listed in COPLFR, let's return to the specific exam question. This was a nasty question because they were clearly trying to trick you. The question asked for risk factors pertaining to a **personal lines** company, and they did not accept many of the answers in the above lists **unless** you stated specifically how it could impact the personal lines carrier. But more than that, it felt like they were simply looking for reasons to deduct points. **For example:**

- **accepted answer:** changes in adequacy of known case reserves
- **rejected answer:** the risk that reserves are inadequate

I was like, huh? I suppose I can see that the first answer is more specific. There is probably always a risk that reserves are inadequate, but the first answer goes further in that it highlights a **reason** to suspect the reserves are inadequate. Still, it was only worth 0.25 points. This question teaches you to be specific (*but also be brief.*)

- **other accepted answers:**
 - catastrophic weather events
 - new products/markets
 - rapid growth
 - thin data or unexplained changes in data

These 4 answers were pretty much straight from the bullet point list. But again, for 0.25 points each, I wouldn't overthink it. There are much bigger fish to fry elsewhere on the exam.

Final Comments on Step 6-C

The *illustrative language* for this is in section (5.2.2). If you check the text, there is a long first paragraph that's basically a disclaimer. It says that ultimate claim amounts are based on future contingent events, whereas current estimates are derived from historical data, **therefore** the final settlement amounts could be very different from the reserve amounts in Exhibit A. *(In other words, if things go to hell in a hand-basket, don't blame the actuary!)*

The second paragraph of the *illustrative language* lists the risk factors and may provide some sort of an explanation.

Note: There is an important comment in the first paragraph of section (5.2.1). It states that the actuary should comment on potential risk factors **even when no RMAD is judged to exist**.

Step 7: Actuarial Opinion Summary

exam Q	(2017.Fall #22) - part (c)
AOS section	Exhibits A,B,C,D
topic	how to construct the AOS exhibits
text reference	section (7.3)

part (c): You are asked to construct the **AOS (Actuarial Opinion Summary) items A,B,C,D**. Note that the AOS has an item E, but that isn't asked here. We'll return to item E further down. Note also that the AOS has items A through E, whereas the SAO has exhibits A & B. Do you remember what these exhibits contain? If not, check the very bottom of the table in The Boring Details. Or if it's too much trouble to click on the link, Alice asked me to list them again for you here!

Exhibit A: recorded amounts for items mentioned in the scope (*in other words, the loss reserves*)

Exhibit B: disclosure items regarding NET reserves in the scope (*interesting that Exhibit B refers only to NET reserves*)

Now, as if all these items and exhibits weren't confusing enough, the *illustrative language* for the actuarial opinion is broken down into 4 sections that are labeled [A], [B], [C], [D]. See section (4) of COPLFR on the Opinion section of the SAO. The source reading didn't use the square brackets here – I added them to provide at least some level of differentiation.

Anyway, once you get all that straight in your head, you should review AOS Format from Odomirok. It's probably also a good idea to open the link that's included there to Mr. Smith's Awesome AOS and print it out for reference. *(Either that or keep it open in a separate tab so you can refer to it easily.)*

Well, that's really all the information you need to do this problem. The answer is the examiner's report is clearly written so have a crack at it!

Final Comments on Step 7

You may struggle a little if this is your first time constructing the AOS, but you'll get the hang of it soon enough. Remember that if you want more practice, you can easily find all the exam problems related to the AOS using either the standard BattleTables at BattleTables - COPLFR, or the bonus BattleTable (*which is an Excel download*) at **COPLFR - Exam Qs by Section**.

Step 8: Review Steps 1-7

If you've made it this far, you're probably sick of looking at the SAO, and you probably want to slap me for telling you to do Steps 1-7 all over again! It's just that the SAO is so important and you can't learn it properly if you only cover it once. But it might be a good idea to **take a short break**. Set it aside and give it a few days to sink into your subconscious. On your second pass through *Alice's Guided Pathway*, see how much you can do without looking at the solutions. But don't be too hard on yourself if it's still jumbled up in your brain. If you've started studying early in the exam cycle, and you proceed **calmly** and **methodically**, everything will fall into place before you know it.

Once you feel comfortable with the above material, you can begin the long slog of going through all the old exam problems. The mini BattleQuizzes guide you through, starting with the most recent exam and working backwards.

Note: An alternate way to review the SAO exam problems is by topic. You can do this using **BattleHack #3 - SAO Topics** from the BattlePlan page in the main part of the BattleActs site. Recall that the Bonus BattleTable (*link near top of this wiki article*) shows you the breakdown of past SAO exam questions by topic.

Alice's Snarky Comments

As Alice was working through these problems, she jotted down a few of her thoughts. Over time, she will likely add to this list based on feedback from you guys. ("**ASC**" stands for Alice's Snarky Comment)

(ASC #1): Trick in: (2013.Fall #25)

- A comment on *assumptions & methods* appears in Section (3.8) of the Scope.
- A comment on changes in *assumptions & methods* appears in Section (5.12) in Relevant Comments.

(The point here is that *assumptions & methods* is **different** from changes in *assumptions & methods*. Whatever...

(ASC #2): Pooling

- Inter-company pooling is **different** from voluntary & involuntary pools. This comes up in the **Scope** section of the SAO. (*The stupid examiners were trying to trick you here.*)

(ASC #3): Section (3.5)

- In (3.5), *Provider of Actuary's Data*, the illustrative language identifies the provider and says the actuary reviewed it
 ==> but it **doesn't** say what to do if they data is deficient somehow. See (2014.Spring #25c)
 ==> apparently this disclosure of bad data can be either in Scope or Opinion where you give the actual opinion or in RMAD because this may represent a material risk
- The writers of the 2014.Spring exam sucked. They totally botched the wording for part (a) of (2014.Spring #24a)

POP QUIZ ANSWERS

The SAO consists of 4 sections, and 2 exhibits: **ISOR + (A,B)**

1. Identification
2. **S**cope
3. **O**pinion
4. **R**elevant comments

- **Exhibit A:** recorded amounts for items in scope (*loss reserves, reinsurance...*)
- **Exhibit B:** disclosure items regarding NET reserves in scope

[Back to Study Tips](#)

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