

Radiation Health Committee

Meeting Minutes

- Date:** 17 – 18 July 2018
- Location:** Hobart Function and Conference Centre’s Gretel Room (1 Elizabeth Street Pier), Hobart 7000
- Chair:** Dr Roslyn Drummond
- Members:** Dr Roslyn Drummond (Chair); Ms Fay Bellis (Public Representative); Mr Mark Carey (NSW); Mr Noel Cleaves (VIC); Mr Simon Critchley (QLD); Mr Bradley Feldtman (NT, attended over the phone); Ms Penny Hill (ACT); Dr Bruce Hocking (Member); Assoc. Prof. Tony Hooker (SA); Dr Carl-Magnus Larsson (CEO of ARPANSA); Dr Stephen Newbery (TAS); Ms Hazel Upton (WA); Dr Joanna Wriedt (Nuclear Safety Committee Representative)
- Secretariat:** Dr Samir Sarkar
- Scribe:** -
- Apologies:** Nil
- Invitees:** Mr Ryan Hemsley (ARPANSA) (via phone, for items 2.3 and 4.2)
Mr Selva Kumar (ARPANSA)
Dr Fiona Charalambous (ARPANSA) (via phone, for item 2.4.1)
Dr Peter Thomas (ARPANSA) (via phone, for item 3.1)
Dr Rick Tinker (ARPANSA) (via phone, for items 3.3, and 3.6)
Dr Cameron Lawrence (ARPANSA) (via phone, for item 3.6)
Mr Garth Sheehy, Ms Julie Murray (ARPANSA) (via phone, for item 3.10)
- Observers:** Dr Gillian Hirth (Chief Radiation Health Scientist, ARPANSA); Mr Jim Scott (Chief Regulatory Officer, ARPANSA); Dr Ivan Williams (Chief Medical Radiation Scientist, ARPANSA)

1. Introductions and Standing Items

Item 1.1 Welcome by the Chair Chair

The Chair called the meeting to order. The Chair welcomed the Members and noted that Mr Stuart Lillie (New Zealand), normally an observer, was unable to attend. Dr Mark Veitch, Director of Public Health Tasmania, welcomed the meeting participants and acknowledged the contribution of the RHC to radiation health in Australia. On behalf of the RHC and other meeting participants, the Chair thanked Dr Veitch for hosting the meeting in Hobart.

Item 1.2 Minutes Chair

The Chair noted that the minutes from the previous meeting held on 14 March 2018 had been confirmed out of session and had been posted on ARPANSA’s website.

Item 1.3 Actions and Business Arising Chair

The Chair noted that items in the action list had either been completed, were in progress or were on the agenda.

Action Item 1 from the meeting held on 14 March: Dr Williams provided an update regarding ARPANSA's relationship with the Therapeutic Goods Administration (TGA) and Medical Services Advisory Committee (MSAC) on radiation health issues. Members noted the importance of continuation of engagement with MSAC and TGA. Members suggested ARPANSA to consider strengthening its interaction with the TGA.

Action 1: Dr Larsson and Dr Williams to approach TGA and report back at the next RHC meeting.

Action Item 2 from the meeting held on 14 March: The letter from the Minister for Queensland Health and Ambulance was referred to the Radiation Regulators' Network (RRN), for discussion at RRN's discretion.

Dr Newbery informed that on the basis of priority of RRN matters the letter from the Minister had not been discussed by the RRN. He stated that this letter will be discussed at the RRN meeting in due course.

Item 1.4 Correspondence

Chair

Members noted the following correspondence:

1. Emails from the Secretariat and to the Secretariat regarding nominations to the working group for Australian guidance on *Radiological consideration on closure, handover and post-closure monitoring and surveillance of practices*.
2. Email from the Secretariat advising the Members that ARPANSA has released the Emergency Exposure Guide for public consultation.
3. Email from the Secretariat to the Members requesting comment on the IAEA Draft Safety Guide DS 434: *Radiation Safety of Accelerator Based Radioisotope Production Facilities*.
4. Email from the Secretariat and to the Secretariat regarding out of session endorsement of the document on Roles and Expectations of Advisory Bodies.
5. Email from the Secretariat to the Members regarding outcomes of the March Meeting of States and Territories related to IRRS Mission.
6. Email from the Secretariat informing the Members of the publication of the final outcomes of the 2017 WHO Joint External Evaluation (JEE).
7. Email from the Secretariat to the Members about the *Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR)* available at the IAEA.

Item 1.5 Public Interest Issues

Ms Bellis

No issues of public interest had been raised with the member representing the interests of the general public.

Item 1.6 Conflict of Interest Declarations

All Members

Nil.

2. National Uniformity

Item 2.1 Tasmanian Radiation Regulatory Framework

Mr Hemsley

Dr Newbery presented the Radiation Regulatory Framework of Tasmania, highlighting the licensing management system, which is a web based system. Members noted the user friendliness of the system and the effectiveness of the system for capturing licensing information.

Item 2.2 Radiation Regulators' Network Update

Dr Newbery/Mr Kumar

The Members noted the current projects and activities and were informed of:

- the proposal to engage with Medical Radiations Australia and the Australian Health Practitioner Regulation Agency (AHPRA) to consider options to ensure that radiation safety competencies are included in registration requirements for medical radiation professionals; and
- a project to discuss the regulatory impact assessment requirements and exemption provisions in each jurisdiction in order to facilitate the implementation of RPS Codes in each jurisdiction.

Based on the discussion, Members agreed to sponsor the project on the regulatory impact assessment requirements and exemption provisions in each jurisdiction in order to facilitate the implementation of RPS Codes in each jurisdiction. Dr Newbery will be the Project Manager and Mr Kumar the Technical Officer.

Action 2: Dr Newbery and Mr Kumar to progress the project on RIS requirements and exemption and provide an update at the next RHC meeting

Item 2.3 IRRS Mission to Australia

Mr Hemsley

Mr Hemsley provided the Members with a verbal update on the progress of the IRRS Mission to Australia. He informed that two jurisdictions were yet to complete their contributions. The Advance Reference Material (ARM) was being finalised and a draft would be circulated shortly.

Item 2.4 NDRP 2nd Edition

Dr Newbery / Mr Kumar

Detailed discussion took place on the NDRP 2nd Edition that included confirmation of text, paragraph by paragraph. The discussion resulted in some changes that were agreed by the Members. The Members endorsed the NDRP 2nd edition in principle subject to the incorporation of the changes agreed at the meeting. The updated document will be circulated to Members out of session for confirmation, followed by submission to the Australian Health Ministers' Advisory Council (AHMAC) and the COAG Health Council (CHC).

Action 3: Mr Kumar to circulate the updated NDRP 2nd Edition incorporating changes agreed at the meeting to Members out of session.

Action 4: Mr Kumar to progress the submission of the NDRP 2nd Edition to AHMAC and CHC.

Item 2.4.1 User Disposal Code

Dr Charalambous

The Members were recommended to change the title of the *Code for the Disposal of Radioactive Waste by the User* to '*Code for the Release of Radioactive Waste*' to better reflect the content and intended use of the Code and to reduce potential confusion with the *Code for Disposal of Solid Radioactive Waste*. Considering the purpose of the Code and its familiarity with stakeholders the Members did not endorse the recommendation but suggested to retain the original title, '*Code for the Disposal of Radioactive Waste by the User*'. The Members had previously endorsed the publication of the Code.

Item 2.5 RHC Projects Update

Dr Sarkar

Dr Sarkar provided an update on the priorities and progress of the current RHC Projects.

3. RHC Work Program – Action

Item 3.1 Medical Exposure Code (RPS C-5)

Mr Critchley / Dr Thomas

Dr Thomas and Mr Critchley provided an update on the status of the *Medical Exposure Code (RPS C-5)*. They advised the Members that a total of 26 submissions were received with a combined total of over 451 individual comments. Consideration of the comments and the drafting of responses were underway. Significant issues were raised regarding

the appropriate roles and responsibilities of particular professions. Dr Larsson suggested to categorise the comments in terms of areas or themes. The Members suggested that the comments be addressed by the next RHC meeting and Dr Thomas and Mr Critchley come up with the plan to resolve the outstanding issues if there were any.

Action 5: Mr Critchley and Dr Thomas to provide the results of resolution of stakeholders' comments and to put forward a plan to resolve the outstanding issues if there are any.

Item 3.2 Emergency Exposure Guide

Dr Hirth

Dr Hirth informed the Committee that the submission of stakeholders' comments closed on 16 April 2018. A total of 103 comments from stakeholders were received. A stakeholder strategy had been implemented in order to engage and inform interested parties of the Emergency Exposure Guide. The working group contacted over 100 interested parties that had been invited to comment on the Guide.

Dr Hirth also informed that the Victorian Department of Health and Human Services (DHHS) was holding a seminar on 25 July 2018 on the theme of radioactive material emergency preparedness and response to engage with Victorian stakeholders for better understanding of this guide in emergency situations involving radiation. Dr Tinker will visit the Tasmanian authority to finalise comments from Tasmania. Dr Hirth stated that comments will be resolved before the next meeting and the updated guide with resolution of stakeholders' comments will be presented at the next RHC meeting in October 2018 for approval.

Action 6: Dr Hirth to provide the updated Emergency Exposure Guide with resolution of stakeholders' comments at the next RHC meeting in October 2018 for approval.

Item 3.3 National Model for Public Information (Cosmetic Laser and IPL Injury Register) Mr Critchley / Dr Tinker

The Members suggested to renaming the Agenda Item title 'Cosmetic Laser and IPL Injury Register' for better reflection of the issues covered under this item.

Dr Hirth and Mr Critchley provided an update on the response to ARPANSA's letters to the State and Territory Health Complaints Commissions in relation to laser and IPL incident reporting. It was advised that ARPANSA received limited response in this regard. The Members noted that there were not enough data on incidents. The Members also noted that the 'Advisory Note' will be released for public consultation.

Action 7: Dr Hirth to provide an update on consultation on the Advisory Note at the next RHC meeting in October 2018.

Item 3.4 Review of RPS3

Dr Hocking

Dr Hocking provided an update on the review of *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz* (2002 (RPS3) and advised that ICNIRP guidelines had been released for public comment on 11 July 2018. The Members were informed that ARPANSA made this document available on ARPANSA's website for comment. The RPS 3 will be revised in the light of the ICNIRP guidelines. The Members noted that the NZ Ministry of Health expressed interest in participating in the revision of RPS 3. The Committee advised ARPANSA to explore options for a joint Australian and New Zealand publication of RPS 3 and to engage with the Australian Communications and Media Authority in this regard. The Committee also advised to include a member from New Zealand in the working group. Considering that there is lack of clarity in regulatory authority for RF it was agreed to include an annexure to the Code with information on who to contact if there is any confusion on jurisdictional authority.

Action 8: ARPANSA to explore options for a joint Australian and New Zealand revision of RPS 3 and to engage with the Australian Communications and Media Authority in this regard.

Action 9: ARPANSA to invite a member from New Zealand to be invited to the working group.

Action 10: The working group to develop an annexure to the Code with information on jurisdictional authority.

Action 11: The working group to present the draft revised RPS 3 at the next RHC meeting in October 2018.

Item 3.5 RHS 35 – Code of practice for the near-surface disposal of radioactive waste Dr Hirth / Dr Sarkar / Dr Larsson/ Mr Feldtman

Mr Feldtman provided an update on the status of the Disposal Code particularly on the resolution of comments received from stakeholders. Dr Larsson provided further clarification on the resolution of comments. Discussion took place on section 2.7- The Approval Process/Phases and subsection 3.1.13 under 'Consultation' regarding whether to revise and/or retain these sections. It was agreed to retain these sections as drafted. Minor editorial changes were discussed and accepted. The Committee advised the working group to check for consistency with RPS 16 *Safety Guide for the Predisposal Management of Radioactive Waste* (2008). Regarding interpretation of risk the Committee advised ARPANSA to prepare a guidance document in this regard.

The Members discussed the title of the Code considering the scope and objective of the code and it was agreed to use the following title:

Code for Disposal Facilities for Solid Radioactive Waste, Radiation Protection Series C-3 (RPS C-3)

The Members thanked Mr Feldtman and the working group for preparing this document.

The Committee approved this Code subject to the suggested amendments.

Action 12: The working group to finalise the document incorporating suggested amendments.

Action 13: ARPANSA to submit a guidance document on the concept of 'risk' and provide an update at the next RHC meeting in October 2018.

Action 14: Approve the "Code for Disposal Facilities for Solid Radioactive Waste (RPS C-3) incorporating suggested amendments for publication.

Item 3.6 Australian National Dose Register (ANRDR) Dr Tinker / Dr Lawrence

There was an action from the meeting in March 2018 that WA would advise the Members in July 2018 of their position on the ANRDR becoming an approved central record keeping agency for WA. Ms Upton advised the Members that WA was still waiting for legal advice acknowledging that they are supportive in principle of ANRDR becoming an approved central record keeping agency for WA. Ms Upton will report on progress at the next RHC meeting in October 2018.

Dr Lawrence provided a summary of the development process for regulator access to ANRDR and its benefits along with the funding model based on the Australian Health Ministers' Advisory Council (AHMAC) cost-sharing formula. Payments from jurisdictions would be expected to commence upon delivery of a successful working model of the ANRDR for regulator access approximately 12 months after project commencement. The initial cost will be managed by ARPANSA and will be recovered in the 2019-2020 financial year. The Members noted the benefits of the ANRDR regulator access and agreed in principle to the funding model, subject to negotiation of a Memorandum of Understanding (MoU) between all jurisdictions. It was agreed that the MoU would be signed by April 2019 and all jurisdictions will provide appropriate contacts to the ARPANSA Radiation Health Services (RHS) Branch in this regard. Mr Cleaves stated that he would provide an example of an MoU for consideration by the jurisdictions.

Action 15: Ms Upton to report on WA's position on the ANRDR the next RHC meeting in October 2018.

Action 16: Approve, in principle, the funding model for the development of ANRDR regulator access, subject to the negotiation of a Memorandum of Understanding between all jurisdictions.

Action 17: All jurisdictions to provide contacts for the MoU to ARPANSA

Action 18: Mr Cleaves to provide an example of an MoU to ARPANSA for subsequent consideration by all jurisdictions

Item 3.7 ISEMIR – Information System on Occupational Exposure in Medicine, Industry and Research Dr Tinker/Dr Lawrence

Dr Tinker and Dr Lawrence presented ARPANSA's proposed approach to promoting the IAEA ISEMIR project via the Australian National Dose Register (ANRDR) web pages, noting the synergies of ISEMIR and ANRDR. ISEMIR requires an annual submission of annualised dose records, along with other data, for employees of the organisation submitting data. Any organisation wanting to participate in the ISEMIR program could supply dose records to the ANRDR. ARPANSA aims to develop and publish the webpage by the end of September 2018.

Action 19: The Members approved ARPANSA's approach to promoting the IAEA ISEMIR project via the ANRDR webpage.

Item 3.8 Radiation Security Background Checking Framework Mr Carey / Mr Sheehy

Mr Carey provided a verbal update on the progress of the work on security background checking framework. The WG had discussed the possibility of using the existing systems available in Queensland and NSW. The WG agreed to explore the use of Auscheck Branch, Department of Home Affairs, which had previously assisted in setting up the aviation and maritime safety check card. The next meeting with Auscheck would be held on 3 August 2018. The WG will prepare an options paper describing the way forward and submit it at the next RHC meeting.

Action 20: Mr Carey to submit an options paper at the next RHC meeting in October 2018.

Item 3.9 Revision of Code: Safe Transport of Radioactive Material, RPS C-2 Dr Sarkar

Dr Sarkar provided the Members with the impact of changes in the 2018 Edition of RPS C-2, and the OBPR Preliminary Assessment of the revision of RPS C-2 adopting the 2018 Edition of the IAEA safety Standard SSR-6 (Rev.1). Jurisdictional Members were requested to consult their regulatory gatekeeper about the revision of RPS C-2 adopting the 2018 Edition of the IAEA Safety Standard SSR-6 (Rev.1) as required. The Committee endorsed the impact of changes and the OBPR Preliminary Assessment.

Action 21: Endorse the "Impact of Changes " as accurate and endorse the OBPR preliminary Assessment for the revision of the RPS C-2.

Action 22: Jurisdictional Members to consult their regulatory gatekeeper about the revision of the RPS C-2.

Action 23: Dr Sarkar to circulate RPS C-2 to the Members out-of-session once finalised subject to positive outcome from OBPR assessment.

Item 3.10 Guide: Closure Criteria for Mines Mr Feldtman

Mr Feldtman provided a verbal update on the development of this guide. He stated that he had not been able to call a meeting of the working group because of his availability and work commitment. However, Mr Feldtman will contact the working group in the near future and organise a meeting. Dr Hirth expressed her interest to be part of the working group and in contributing to the development of this document. Mr Feldtman will report on progress of the development this guide at the next RHC meeting in October 2018.

Action 24: Mr Feldtman to contact the working group to advance the work on the Guide.

Action 25: Appoint an additional member to the working group from ARPANSA

Action 26: Mr Feldtman to report on progress of the development of this guide at the next RHC meeting in October 2018.

Item 3.11 Accreditation of Personal Dosimetry Service Providers

Dr Lawrence

Dr Lawrence described the previous work performed by the RHC in relation to the accreditation of personal dosimetry service providers and the pending publication of the IAEA Safety Guide on Occupational Radiation Protection. With the expected publication of the IAEA Safety Guide the RHC was requested to re-establish a working group to finalise a national system for the accreditation of personal dosimetry service providers. This group will review the existing body of work; review and include as relevant the provisions of the Safety Guide; and report back to the RHC with a proposal for implementation. The Members noted that previous work had been performed by the RHC in this regard and approved the re-establishment of a working group. Mr Cleaves will be the RHC Project sponsor and VIC will nominate another person to the working group. SA will also nominate a member. QLD nominated Mr Stephen Carter to this working group.

It was noted that there could be a potential for conflict of interest for ARPANSA on this issue, as it is a personal dosimetry service provider. In order to avoid any real or perceived conflict of interest it was suggested that the nominee from ARPANSA on this working group come from ARPANSA's Regulatory Services Branch. All nominations to be sent to the Secretariat by 28 July 2018.

After-note: On 25 July 2018, Mr Critchley confirmed the nomination of Mr Carter to the working group.

Action 27: Approve the re-establishment of the working group to complete the development of a national accreditation system for personal dosimetry service providers. Mr Noel Cleaves was appointed as RHC Project Manager

Action 28: VIC, SA and ARPANSA Regulatory Services Branch to nominate a member from each jurisdiction by 28 July 2018.

4. General Information Items

Item 4.1 Roles and Expectations for ARPANSA Committee Members

Dr Larsson

Dr Larsson advised that the document on Roles and Expectations for ARPANSA Committee Members was updated incorporating comments from committee members and the document was placed on the ARPANSA website. Dr Larsson also informed the RHC about the status of appointments to the Radiation Health and Safety Advisory Council.

Item 4.2 National Uniformity Program

Dr Sarkar

Dr Sarkar advised that ARPANSA's Regulatory Services Branch had been realigned to increase emphasis on national uniformity, and the National Codes and Standards Section had been created to manage the program. An ARPANSA National Uniformity Coordination Group comprising members of various organisational units of ARPANSA had been established. This group will provide advice and guidance on the national uniformity program and the lifecycle of the ARPANSA Codes. The first attempt of a mapping exercise related to the codes and guides, in the light of international standards had been performed, which will be considered in the next one-year and four-plan for the national uniformity program. Dr Sarkar will report on the progress of the national uniformity program at the next RHC meeting.

Action 29. Dr Sarkar to report on the progress of the national uniformity program at the next RHC meeting in October 2018.

Item 4.3 International Liaison

Mr Wahl

Mr Hemsley provided the Members with a verbal update on ARPANSA's International Engagement activities including the following:

- ARPANSA led the delegation to the Sixth Review Meeting under the Terms of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, held in Vienna 21 May – 1 June 2018. Australia provided one of the two Vice-Presidents (Dr Geoff Williams) and a representative (Dr Fiona Charalambous) to act in the Officer's role of Rapporteur of Country Group 3. Australia was represented by: Dr Gillian Hirth, Dr Samir Sarkar, Dr Geoff Williams, Ms Julia Carpenter, Dr Fiona Charalambous (ARPANSA); Mr Peter McGlinn and Mr Duncan Kemp (ANSTO), and Dr Kath Smith (ANSTO Vienna Post). Australia's strong engagement at the 6th Review Meeting demonstrates that Australia, as a Contracting Party, continues to meet its obligations under the Joint Convention. Australia's National report was well received at the meeting. Australia's leadership and the support of all jurisdictions in the preparation of the national report, and Australia's provision of Officers for the Review Meeting, is a significant commitment and reinforces Australia's reputation as a leader internationally in promoting global commitment to the principles of the Joint Convention. During the plenary session in week two Australia proposed to hold an Extraordinary Meeting prior to the Organisational Meeting of the 7th Review meeting. This Extraordinary Meeting will allow for discussion on possible ways to improve procedural mechanisms of the Joint Convention, and to identify and eliminate technical discrepancies between existing procedural documents of the Joint Convention
- The Secretary position of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) has not been filled yet.
- IAEA Guidance on the Management of Disused Radioactive Sources, which is supplementary to the Code of Conduct in the Safety and Security of Radioactive Sources. The IAEA is requesting Member States to make a political commitment in favour of the guidance document at the 2018 IAEA General Conference, in September 2018. The guidance document will be sent to RHC Members for comments.
- ARPANSA will attend the General Conference to be held in September 2018 as part of the Australian Delegation and there will be a number of bilateral engagements with other organisations.

Action 30: The Members to provide comment on the IAEA Guidance to Mr Hemsley by 17 August 2018.

Item 4.4 Practical Arrangements between the IAEA and ARPANSA

Dr Hirth

Dr Hirth advised that the IAEA and ARPANSA have agreed to set forth a framework for cooperation in the area of Occupational Radiation Protection in Naturally Occurring Radioactive Material (NORM) Industries. The agreed activities include: cooperation on the development of the "Training Package on Occupational Radiation Protection in Uranium Mining and Processing Industry" and cooperation on the review and re-design of the global survey on "Information System on Occupational Radiation protection in Uranium Mining (UMEX)".

Action 31: The Members noted the agreement of the proposed work plan between the IAEA and ARPANSA to implement the practical arrangements.

Item 4.5 Nuclear Safety Committee (NSC) Update

Dr Wriedt

Dr Wriedt provided an update on the NSC meeting held on 22 June 2018. She informed about the passing of the NSC Member Dr Robert Lee and that the NSC had acknowledged his contribution to the understanding of human factors and systems safety in ARPANSA's regulatory decisions. Consideration of human factors in design and critical controls for operation were discussed at that meeting. The NSC members supported the intention of the CEO of ARPANSA to issue a direction to ANSTO that includes taking immediate steps to initiate an independent review of the approach to occupational radiation safety of processes and operational procedures at ANSTO Health, related to quality control procedure (this direction was subsequently issued on 29 June 2018).

5. Closing

Item 5.1 Any other business **Dr Drummond**

Item 5.1.1 X-ray scanner on Human imaging at Airports **Dr Newbery**

Dr Newbery drew members' attention to the Federal Budget announcement of funds to expand airport scanning of passengers. There is no detail as to whether this will involve ionising radiation or non-ionising radiation scanning. He reminded the Members about the existing ARPANSA's Regulatory Guides, which can be applied across all jurisdictions. For example, Regulatory Guidance: *Justification and optimisation of practices - Human imaging for security screening purposes using ionising radiation*, Regulatory Guide: *Wipe Testing of Sealed Sources & Use of Sealed Sources beyond Recommended Working Life*. Dr Newbery suggested to explore the mechanism of using existing ARPANSA documents in all jurisdictions. In addition, it was also suggested to check the RHC archives for historical RHC statements that may provide valuable regulatory insights. The Secretariat will check the archives and report to the next RHC meeting.

Action 32: The Secretariat to provide a list of historical RHC statements at the next RHC meeting in October 2018.

Item 5.1.2 Update on Joint External Evaluation **Dr Hirth**

Dr Hirth informed the Members of the publication of the final outcomes from the 2017 WHO Joint External Evaluation (JEE). She referred to the follow up action plan for the recommendations, specifically relevant to the RHC Members, which resulted from the JEE. She proposed to undertake this work through the RHC. More details will be provided at the next RHC meeting with a proposed RHC work plan. The Members noted the status of the outcomes of the JEE.

Action 33: Dr Hirth to provide more details on JEE with a proposed RHC work plan at the next RHC meeting in October 2018.

Item 5.1.3 Sealed Source Register **All Members**

Discussion took place on reinstating the national sealed source register, which discontinued being used a while ago. Members agreed to take steps towards reinstating the national sealed source register, noting that a number of jurisdictions had spent a significant amount of resources in the development of this register. It was suggested to present a paper describing the proposed actions to reinstate the national sealed source register.

Action 34: ARPANSA to submit a paper on the proposed actions to reinstate the national sealed source register at the next RHC meeting in October 2018.

Item 5.1.4 Low Dose Radiation Research **Assoc. Prof. Hooker**

Assoc. Prof. Hooker informed that a considerable amount of research is being undertaken on low dose/dose rate radiation effects around the world. He referred to an upcoming seminar on Applicability of Radiation Response Models to Dose Protection Standards which will be held during 30 September to 3 October 2018 in Washington. Assoc. Prof. Hooker was invited to speak at the seminar. He would circulate the information to Members about this seminar.

After-note: On 23 July 2018 Assoc. Prof. Hooker circulated the information about the seminar to the Members.

Item 5.1.5 Comment on IAEA Draft Documents **Dr Sarkar**

Dr Sarkar provided an update on draft IAEA documents. The update included: Safety Guide: *Management of Radioactive Residues from Uranium Production and other NORM Activities* (DS459), Safety Guide: *The Management System for the Predisposal and Disposal of Radioactive Waste* (DS477), Safety Guide on Exemption (DS499), Safety

Guide on Clearance (DS500), review of WS-G-5.1 (*Release of Sites from Regulatory Control on Termination of Practices*) and the draft Safety Report on *Living and Working in Areas Affected by Past Nuclear or Radiological Events and Activities: Experiences from Affected Areas*. He requested jurisdictional Members to provide comment on the use of WS-G-5.1, including any particular aspect needing to be considered in the revision or additional consideration for release of the site. Dr Sarkar said he would send the request to Members after the meeting.

After-note: On 30th July Dr Sarkar sent an email to the Members requesting comment on WS-G-5.1

Action 35: Jurisdictional Members to provide comment on WS-G-5.1 to Dr Sarkar by 28 September 2018.

Item 5.2 Next Meeting 9/10 October 2018

Dr Drummond

Dr Drummond closed the meeting by thanking Dr Newbery for the excellent arrangements in hosting the RHC meeting in Hobart.

The next RHC meeting will take place in Melbourne during 9–10 October 2018.

The meeting closed at 1:30 pm on 18 July 2018.



Radiation Health Committee

Meeting Minutes

- Date:** 9 – 10 October 2018
- Location:** Rydges Melbourne (CBD) 186 Exhibition St, Melbourne VIC 3000
- Chair:** Dr Roslyn Drummond
- Members:** Dr Roslyn Drummond (Chair); Ms Fay Bellis (Public Representative); Mr Mark Carey (NSW); Mr Noel Cleaves (VIC); Mr Simon Critchley (QLD); Ms Penny Hill (ACT); Dr Bruce Hocking (Member); Assoc. Prof. Tony Hooker (SA); Dr Carl-Magnus Larsson (CEO of ARPANSA); Dr Stephen Newbery (TAS); Ms Hazel Upton (WA); Dr Joanna Wriedt (Nuclear Safety Committee Representative)
- Secretariat:** Dr Samir Sarkar
- Scribe:** Ms Daniela D’Antonio
- Apologies:** Mr Bradley Feldtman (NT); Mr Stuart Lillie (New Zealand)
- Invitees:** Mr Ryan Hemsley (ARPANSA) (for items 1.8 and 2.3)
Ms Mandy Charlton on behalf of Ms Sharon Appleyard (Department of Health, Commonwealth) (for Item 2.4)
Dr Peter Thomas (ARPANSA) (for item 3.1)
Dr Ken Karipidis (ARPANSA) (for item 3.3, 3.4)
Ms Julia Carpenter (ARPANSA) (for item 3.5)
Mr Loch Castle and Mr Garth Sheehy (ARPANSA) (for item 3.7, 3.11)
- Observers:** Dr Gillian Hirth (Chief Radiation Health Scientist – Radiation Health Services); Dr Ivan Williams (Chief Medical Radiation Scientist – ARPANSA); Ms Tone Doyle (Chief of Staff – ARPANSA); James Wheaton (Parliamentary Relations Officer - ARPANSA); Nathan Wahl (Assistant Director - ARPANSA)

1. Introductions and Standing Items

Item 1.1 Welcome by the Chair Chair

The Chair called the meeting to order and, on behalf of the RHC and other meeting participants, thanked Mr Cleaves for hosting the meeting in Melbourne.

Item 1.2 Minutes Chair

The Chair noted that the minutes from the previous meeting held during 17-18 July 2018 had been confirmed out of session and had been posted on ARPANSA’s website.

Item 1.3 Actions and Business Arising Chair

The Chair noted that items in the action list had been completed, were in progress or were on the agenda.

Action Item 1 from the meeting held on 17 July is covered under Agenda Item 1.7 below.

Item 1.4 Correspondence

Chair

The Members noted the following correspondence:

1. Emails from the Secretariat and to the Secretariat regarding the Australian Health Practitioner Regulation Agency (AHPRA) National Law and registration and accreditation standards.
2. Emails between RHC members regarding the Environmental Health Committee (enHealth) videoconference and associated papers.
3. Email from RHC member to Secretariat providing an example of a MoU for subsequent consideration by all jurisdictions.
4. Emails between SAA Approvals, RHC member and Secretariat regarding Queensland smoke alarm legislation.
5. Email from Ms. Fay Bellis to RHC members regarding article on radioactive material in Malaysia.
6. Emails between RHC members regarding formation of the working party for Accreditation of Personal Dosimetry Service Providers.
7. Email from Secretariat to RHC members regarding NDRP 2nd edition - OBPR outcome.
8. Emails between Ms. Fay Bellis and Secretariat regarding public enquiry and NRWMF.
9. Email from OBPR regarding amendment to RPS C-2.

Item 1.5 Public Interest Issues

Ms Bellis

Ms Bellis informed the Members that she received an enquiry regarding the National Radioactive Waste Management Facility (NRWMF) process; the Department of Industry, Innovation and Science (DIIS) decision criteria; and timeframes for the Minister's decision. Information was also requested on the Senate Inquiry related to 'selection process for a national radioactive waste management facility in South Australia', and whether the Public Representative would be visiting any of the proposed SA sites with ARPANSA. Ms Bellis responded to that enquiry describing her role as a public representative on the Radiation Health Committee (RHC) and her understanding about ARPANSA's role in the site selection process. In the response, Ms Bellis also referred to the document entitled 'Roles and expectations for advisory bodies' available on ARPANSA's website for details of roles of the RHC members. The enquiry and the response are included in the correspondence under Item 1.4.

Item 1.6 Conflict of Interest Declarations

All Members

Nil.

Item 1.7 Engagement with MSAC and TGA

Dr Larsson/Dr Williams

Dr Williams provided an update regarding ARPANSA's relationship with the Therapeutic Goods Administration (TGA) and Medical Services Advisory Committee (MSAC). The Members agreed that the item could now be removed from the action list.

Item 1.8 International Liaison

Mr Hemsley

Mr Hemsley reported that he had received input from the RHC members regarding the IAEA guidance on the Management of Disused Radioactive Sources supplementary to the Code of Conduct in the Safety and Security of Radioactive Sources, which was presented in Vienna together with Australia's commitment to the guidance. Dr Larsson has been nominated for the position as Non-Nuclear Country Vice-President for the 8th review meeting under the terms of the Convention on Nuclear Safety (CNS). If appointed, the position will commence in 2019.

Dr Hirth along with Ms Doyle and Mr Hemsley attended the International Atomic Energy Agency (IAEA) 62nd General Conference, held in Vienna. They reported that ARPANSA had expanded its bi-lateral partnerships by signing MOUs with the regulatory body of The Netherlands, the Authority for Nuclear Safety and Radiation Protection (ANVS),

regarding sharing of experience and expertise in research reactor regulation, and with the Office of Atoms for Peace (OAP) of Thailand, in particular in relation to environmental monitoring. ARPANSA also renewed the MoU with the US Nuclear Regulatory Commission.

Dr Hirth provided a briefing on the Senior Regulators Meeting held during the General Conference. Dr Hirth chaired the session on 'Radiation Protection in Veterinary Medicine'. The meeting highlighted the technological development and the challenges encountered by regulators in radiation protection in veterinary medicine. She informed that the IAEA is drafting guidelines in this area.

Action 1: Dr Hirth to circulate information on the IAEA work on radiation protection in veterinary medicine.

Item 1.9 General Information- Update on Joint External Evaluation and National Action Plan

Dr Hirth/Ms Charlton

Ms Mandy Charlton from the Commonwealth Department of Health gave a presentation on the Joint External Evaluation (JEE) of Australia's core capacities relevant to the International Health Regulations 2005 (IHR). The JEE is a voluntary process in which a team of internal and external experts jointly assess a country's ability to prevent, detect and respond to public health threats across 19 core capacities of the IHR.

The evaluation was carried out throughout 2017. The self-evaluation phase occurred between January and October 2017, and included consultation with over 25 Australian Government agencies, expert committees and organisations, and all eight state and territory governments. Australia's JEE Self-Evaluation Report was finalised and submitted to the World Health Organisation (WHO) before the external evaluation phase, which was conducted between 24 November to 1 December 2017. Australia's final JEE Mission Report, published by the WHO, contains a number of recommendations to further strengthen Australia's capacities in relation to the IHR and improve health security.

In July 2018, the Department of Health circulated the draft action plan for comment. ARPANSA has the lead for addressing the three recommendations related to radiation emergencies, and is an identified stakeholder in a number of the other core capacities.

Action 2: ARPANSA to lead and support in formulating an action plan on how to address the three recommendations by the end of 2018.

Action 3: A six monthly progress report to be presented at the June/July meeting.

2. National Uniformity

Item 2.1 Victorian Radiation Regulatory Framework

Mr Cleaves

Mr. Cleaves gave a presentation on the Victorian Radiation Regulatory Framework. The main areas included in the presentation were Management Licences that must be held by the person/a company who conducts a radiation practice; Facility Construction Licences; User Licences that authorise the licence holder to use specified types of radiation sources for a specified purpose; Approved Testers and Approved Assessors.

Item 2.2 Radiation Regulators Network update

Dr Newbery

The Radiation Regulators Network (RRN) met on Monday 8 October 2018. The Members noted the current projects and activities and were informed of:

- Diagnostic X-Ray workshop in Melbourne.

- The scoping study on exemption levels used in the Australian jurisdictions, using Radiation Protection and Safety Standards of Radiation Sources: International Basic Safety Standards, General Safety Requirements Part 3 (GSR Part 3), which 7 out of 9 jurisdictions have implemented.
- Engaged with AHPRA, ASMIRT and accreditation standards to capture the prerequisites for workforce competencies and the collection/storage of that information.
- Competency approvals.

Item 2.3 Integrated Regulatory Review Service Mission to Australia

Mr Hemsley

Mr Hemsley provided the Members with a verbal update on the progress of the Integrated Regulatory Review Service (IRRS) Mission to Australia. Planning is currently underway with documents received from all nine jurisdictions participating in the IRRS. A draft report with key identified items will be made available post mission. The final report will be made public via the ARPANSA website and be circulated to contacts.

The Members were made aware that the IRRS mission will cover 12 modules and one or more representative from each jurisdiction can attend the interviews and discussions.

A number of invitations had been sent to departments, regulators and regulated entities. Some responses confirming attendance had been received.

Action 4: Mr Hemsley to provide a list of invitees and details on invitations still awaiting response.

Action 5: Jurisdictions to send contact names of staff/RHC members participating in the mission by the end of the week (Friday 12 October 2018).

Action 6: Mr Hemsley to circulate most current version of schedule to the Members.

Action 7: IRRS recommendations to be discussed at the March 2019 RHC meeting.

Item 2.4 Commonwealth Interdepartmental Committee on Regulation of radiation protection and nuclear safety activities in Australia

Ms Doyle

Ms Sharon Appleyard and Ms Gillian Shaw of the Commonwealth Department of Health tendered their apologies due to a last minute urgent commitments. Therefore, Ms Doyle provided background information on the evolution of the enHealth paper that was circulated to enHealth members. enHealth held a meeting on 5-6 September 2018, and the members agreed to take forward the issue of national uniformity and agreed to continue to work on a discussion paper for the audience of Australian Health Ministers' Advisory Council (AHMAC). Following endorsement by enHealth, the discussion paper will support an agenda item for Australian Health Protection Principal Committee (AHPCC) seeking agreement processes supporting bringing the national uniformity discussion to AHMAC.

Feedback from the RHC meeting would be provided to the Department of Health (Commonwealth) by ARPANSA. ARPANSA will also initiate work to hold a teleconference, including the RHC members to discuss the enHealth paper.

Action 8: Any questions or queries from jurisdictions and/or enHealth representatives to be submitted to the Secretariat by the end of the week (Friday 12 October 2018).

Action 9: ARPANSA to provide feedback from this meeting to the Department of Health (Commonwealth).

Action 10: The Members to seek further information from, and provide briefing to, their local enHealth representation.

Action 11: Teleconference to be arranged between Department of Health, Policy makers, enHealth representatives, RRN/RHC members and ARPANSA to discuss National Uniformity and governance.

Item 2.5 Implementation of RHC's decisions on national uniformity**Dr Newbery/ Mr Cleaves**

The Members were made aware of the National Directory for Radiation Protection (NDRP) 2nd Edition public consultation, concluding 3 Nov 2018. Following the consultation stage and amendments as necessary, the draft edition will be sent to the COAG Health Council (CHC) for approval out of session, which is expected to take about 12 months, with expected decision about October 2019.

Additionally, the implementation of the NDRP was discussed. It was suggested that joint peer reviews be undertaken in groups of three by 2020. The proposed outcomes and outputs to implement Part B of NDRP 2nd edition were reviewed and agreed, with priority to be given to the first two items in the table. The prioritised outcomes are - user licence holders transfer seamlessly among jurisdictions, and equipment that is registered in one jurisdiction accepted in another jurisdiction without further testing; the corresponding outputs are- nationally agreed competency requirements for user licences to facilitate implementation of the Mutual Recognition Act 1992, and nationally agreed compliance testing standards and criteria used for compliance testing by accredited testers. The Members will be advised of the projects via progress/summary reports, concluding approximately June 2019. The Members agreed to plan for a national workshop involving policy makers in April 2019 in Adelaide to discuss and resolve governance arrangements for national radiation safety policy.

Action 12: The RRN to progress work on implementation of Part B of NDRP 2nd edition and update RHC periodically, with the aim of completion by the July 2019 meeting.

Action 13: Jurisdictions to undertake joint peer reviews of regulation implementation in groups of three by 2020.

Action 14: SA to host a national workshop to broadly consider the optimal governance model to progress National Uniformity in radiation protection in Australia, in the first half of 2019, in Adelaide. Workshop invitees to include policy makers from the Departments of Health and radiation regulators, and other stakeholders.

Item 2.6 Regulation of Australia's health professions- consultation paper**Dr Newbery**

Dr Newbery presented the Regulation of Australia's health professions consultation paper. Some Members within jurisdictions identified areas that deserve attention. A paper will be drafted on behalf of the RHC highlighting their views.

Action 15: Dr Newbery and Mr Cleaves to prepare a letter of response to be sent to the AHPRA on behalf of the RHC.

Item 2.7 National Directory for Radiation Protection 2nd Edition update**Dr Newbery**

See agenda item 2.5.

Item 2.8 Results of mapping exercise on codes and guides**Dr Sarkar**

Dr Sarkar presented the results of a mapping exercise on relevant RPS and RHS documents. The exercise identified that a number of RPS and RHS documents should be revised, and relevant international standards that are available and/or in the process of publication could be used for revision of the RPS and RHS documents.

The Members agreed on a working group to critically analyse discrepancies between RPS 20 and IAEA General Safety Guide GSG-1, and prepare a work-plan to address these discrepancies. The working group comprises Mr Simon

Critchley (Project Manager), Dr Samir Sarkar, Mr John Templeton, Dr Brad Cassel, Ms Julia Carpenter and a representative from South Australia (to be advised).

Action 16: Working group to critically analyse discrepancies between RPS 20 and GSG-1 and prepare a work-plan to address these discrepancies.

Action 17: SA to nominate a member to the working group.

Item 2.9 Radiation Health Committee Projects update

Dr Sarkar

Dr Sarkar presented an update on progress of the current RHC Projects. It was agreed to have a new agenda item for the next RHC meeting on prioritisation of revision of RPS and RHS documents, taking into account the results of the mapping exercise discussed under Item 2.8 above.

Action 18: A new agenda item on prioritisation of revision of RPS and RHS documents to be included at the next RHC meeting in March 2018.

3. Radiation Health Committee Work Program

Item 3.1 Medical Exposure Code (MEC)

Mr Critchley/Dr Thomas

Mr Critchley provided an update on the status of the draft *Medical Exposure Code* (RPS C-5). He began by highlighting that many of the responses and comments were good observations and of benefit to the Code. The drafting of responses were in progress by the working group with three items that require Members' guidance.

1. Dose constraints for comforters and carers:

The clause, and radiation levels of particular treatments were discussed. The Members suggested being consistent with IAEA and GSR Part 3 and ensuring the specifications would accommodate any future technologies emerging.

Action 19: The working group to review the clause ensuring the wording does not negatively impact on the treatment.

2. Auditing of quality assurance programs and evidence requirements:

The clause and definition of regular review were discussed. Suggestions included a regular and independent audit and/or guidance by Practice Standards.

Action 20: The working group to review the clause and clarify what is meant by 'regular review and audit' and ensure that this is consistent with standards used by the relevant professional associations.

3. Definition and role of medical physicist:

The working group received conflicting comments around the change in terminology from "qualified expert" to "medical physicist". Comments received from The Medical Radiation Practice Board (MRPB) and the Australian Society for Medical Imaging and Radiation Therapy (ASMIRT) expressed concern that activities currently undertaken by technologists would now be assigned to physicists. In contrast, the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM), expressed concern that the definition of "medical physicist" in the Code is too broad, in that it allows the relevant regulatory authority to recognise persons as medical physicists for the purposes of the Code, independent of any recognition by the ACPSEM.

Mr Critchley advised the Members that the three main parties and the working group would meet to discuss the role and responsibility of the Medical Physicist and aim to resolve the discussion point and finalise the Code.

Action 21: The working group, ASMIRT, ACPSEM and MRPB to meet to discuss the definition and role of the medical physicist.

Action 22: A revised Code to be circulated to the Members for out of session approval with the aim to publish prior to end of year.

Action 23: OBPR to be contacted to, for the revised Code, reconfirm its decision on the RIS.

Item 3.2 Emergency Exposure Guide

Dr Hirth

Dr Hirth reported that the resolution of stakeholders' comments was progressing.

The amendments to the draft Guide included an updated definition of Emergency Workers and Helpers and an addition of a Hazard assessment. The stakeholders' comments were mostly positive and therefore minimal proposals for amendments were received. The working group suggested endorsing the draft Guide for Radiation Protection in Emergency Exposure Situations out of session and aim for publication.

Action 24: The draft Guide for Radiation Protection in Emergency Exposure Situations to be circulated out of session to the Members for approval by end of November 2018 and for publishing by end of 2018 or early 2019.

Item 3.3 Cosmetic laser and intense pulsed light injury register

Dr Karipidis

Dr Karipidis provided an update on the public consultation on the draft advice for cosmetic treatments and beauty therapy using lasers, intense pulsed light (IPL) devices and high-powered light-emitting diodes (LED). The consultation period was for one month and ended on 23 September 2018.

Four submissions were received and as such, each comment will be addressed individually within the next fortnight. ARPANSA aim to publish the Advice prior to the end of year.

Action 25: Advice for cosmetic treatments and beauty therapy using lasers, IPL devices and high-powered LEDs to be published prior to the end of 2018.

Item 3.4 Review of Radiation Protection Standard: Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz, Radiation Protection Series Publication No. 3 (2002) (RPS3)

Dr Karipidis/Dr Hocking

The Members were presented with the draft update of RPS3, now planned to be a Code based on revised guidelines from the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The draft Code covers 100 kHz to 300 GHz noting that the current standard covers 3 kHz to 300 GHz. The Code is planned to include electrostimulation limits between 100 kHz and 10 MHz, based on the 2010 ICNIRP low frequency guidelines. The Members were requested to provide comments on the draft Code by 31 December 2018.

The Members considered that it would be useful to develop a communication product for a) professional/technical audience regarding, for example, measurements and the new 30 minute averaging time, and b) the public in the form of for example an information paper on 5G mobile communications. It was suggested that the public communication be developed in conjunction with relevant technical and communication experts.

It was also noted that the proposed ICNIRP safety levels do not vary markedly from the existing RPS3.

It is to be noted that the consultation period for the ICNIRP Guidelines ends on 9 October 2018.

When ICNIRP values are finalised they will be incorporated into the draft Code which will be sent to targeted stakeholders for comment.

Action 26: The working group to circulate the draft update of RPS 3 to the Members for review, paying particular attention to Section 5 *Protection—occupational and general public exposure*, and provide comments by 31 December 2018.

Action 27: Draft standard incorporating ICNIRP values to be sent to targeted stakeholders for comment.

Action 28: Communication products for two audiences to be developed: one product intended for a professional/technical audience covering important changes in the standard such as 30-minute averaging times and another communication product intended for the public such as FAQ including Information on 5G-radiofrequency range. This information to be developed and published on ARPANSA website.

Action 29: An RIS to be developed on the assumption they will not be marked changes in safety levels.

Item 3.5 **Radiation Protection Series C-3 – Code for Disposal Facilities for Solid Radioactive Waste** Ms Carpenter

In lieu of Mr Feldtman, Ms. Carpenter informed the Members that the Code for Disposal Facilities for Solid Radioactive Waste, Radiation Protection Series C-3 (RPS C-3) will be published early next week. The Members agreed to withdraw the Code of practice for the near-surface disposal of radioactive waste in Australia (1992), Radiation Health Series (RHS) No.35 as soon as practicable.

Action 30: Jurisdictions to withdraw RHS 35 as soon as practicable.

Item 3.5.1 **Guidance on the concept of risk**

Dr Larsson

Dr Larsson stated that a draft guidance document on the concept of risk was being prepared, which will be circulated to the Members out of session. The document will consider deterministic and probabilistic approaches. It was suggested to circulate any background papers the Members were aware of.

Action 31: The guidance on the concept of risk document to be circulated out of session. The Members to send background papers as available. This to be discussed further at the March 2019 RHC meeting.

Item 3.6 **Australian National Radiation Dose Register**

Dr Hirth

The Chair asked Ms Upton to report on WA's position on the ANRDR. Ms Upton informed that WA intended to use the ANRDR as the central register; however, are still awaiting legal advice.

Action 32: Ms. Upton to update the Committee at the next RHC meeting.

Dr Hirth stated the MoU, related to regulators' access to the dose records of their licence holders, between all jurisdictions is currently in draft. As per the July 2018 RHC meeting, Action 17, all jurisdictions are to provide contacts for the MoU to ARPANSA. These contacts will be added to the MoU.

Action 33: Jurisdictions to provide contact names for ANRDR MoU by end of October 2018 to the Secretariat.

Item 3.7 **Radiation Security Background Checking Framework**

Mr Carey

Mr Carey presented the first version of an options paper, prepared by the working group in consultation with Auscheck, for security background checking.

Considering the advantages and disadvantages the working group suggested that a national scheme under Commonwealth auspices would provide the ideal approach to progress a background checking scheme for security enhanced radioactive sources, providing consistency in application of standards, such as disqualifying criteria, portability and cost efficiency/economy of scale; as well as to provide a 'one stop shop' for applicants. Following

discussion, the Members suggested ARPANSA seek legal advice from ARPANSA's General Counsel whether the suggested option will have any legislative implication. After receiving legal advice the working group will send the revised options paper to the Members out of session prior to submission to the Department of Health.

Action 34: ARPANSA to seek legal advice from the General Counsel of ARPANSA

Action 35: The working group to send the revised paper to the Members out of session for endorsement for submission to the Department of Health

Item 3.8 Revision of Code: Safe Transport of Radioactive Material, Radiation Protection Series C-2 2018 Dr Sarkar

Dr Sarkar informed the Members that the OBPR had advised that no RIS was required for the updating of Radiation Protection Series (RPS) C-2 and that the IAEA approved the reproduction of SSR-6 for adoption in Australia. ARPANSA will add additional relevant information such as 'foreword', 'introduction' etc. and circulate the draft revision of RPS C-2 to the Members out of session for endorsement. It was noted that RPS C-2 was aimed to be published by the end of November 2018.

Action 36: The Secretariat to circulate the updated RPS C-2 to the Members out-of-session for endorsement of the additional information.

Action 37: RPS C-2 2018 is aimed to be published on ARPANSA website by end Nov 2018.

Item 3.9 Guide: Closure Criteria for Mines

Mr Feldtman

Mr Feldtman was an apology for this meeting. Item held over until the 19-20 March 2019 meeting.

Item 3.10 Accreditation of Personal Dosimetry Service Providers

Mr Cleaves

Mr Cleaves reported that the working group met to discuss the accreditation of Personal Dosimetry Service Providers nationally and internationally. The main topics discussed were the regulation and accreditation of services/organisations, and if permits were required per organisation/device. Jurisdictions were requested to send information to Mr Cleaves, who will report on progress at the next RHC meeting.

Action 38: Jurisdictions to send examples of their own jurisdictions' accreditation or auditing system and lists of approved Service Providers.

Item 3.11 Sealed Source Register

Mr Castle

The RHC discussed the scope of the project and the recent relevant Joint External Evaluation (JEE) recommendations. It was suggested that the Sealed Source Register/system would need to capture the transfers of sources nationally and internationally potentially include a database interface to Customs.

Action 39: The Members approved the formation of a working group to explore the options, re-examine the scope, lessons learnt from the previous database and the improvements required for the sealed source register. The working group comprises Mr Carey (Project Manager), Mr Cleaves, Assoc. Prof. Hooker, and Mr Castle and other ARPANSA staff. Mr Carey to report on progress on the sealed source register at the next RHC meeting in March 2019.

Considering that ARPANSA is visiting Canadian Nuclear Safety Commission, the Committee requested ARPANSA to examine the Canadian system for capturing the sealed source information.

Action 40: ARPANSA to review the Canadian Nuclear Safety Commission processes and database and provide an update at the next RHC meeting in March 2019.

4. General Information Items

Item 4.1 ANSTO Health Incident update

Dr Larsson

Dr Larsson updated the Members on the August 2017 ANSTO Health accident and other events, and on regulatory actions taken. Since August 2017, there have been a number of events with implications for safety at ANSTO Health, including the accident in August 2017.

On 5 October 2018, following a direction from ARPANSA's CEO dated 29 June 2018, ANSTO provided ARPANSA with a report produced by an independent expert review team outlining 85 recommendations to improve ANSTO's occupational radiation safety processes and operational procedures. Dr Larsson stated that the report by the independent reviewers will be discussed by the Nuclear Safety Committee at its next meeting.

Item 4.2 Nuclear Safety Committee (NSC) Update

Dr Wriedt

The Members were informed that the validation of the Regulatory Performance Framework annual self-assessment would be discussed at the next NSC meeting to be held 2 November 2018.

5. Closing

Item 5.1 Any other business

Dr Drummond

Item 5.1.1 List of Historical RHC Statements

Dr Newbery/ Dr Sarkar

Dr Newbery asked the Committee to discuss the intent and purpose of the RHC statements including capturing these statements in the NDRP in a systematic way. The historical RHC statements list was also reviewed and it was identified that certain statements would require updating or referencing to applicable standards on an ongoing basis. The Members agreed to work on the mechanism for the effective use of the RHC statements. It was also decided that statements that were no longer required or out-of-date should be withdrawn. Furthermore, due to a webpage update, the RHC statement on *Airport screening and security* could not be located within ARPANSA records. Mr. Critchley stated that that he would provide this information.

Action 41: Mr. Critchley to provide to the Secretariat referencing material on the RHC Statement pertaining to Airport screening and security.

Action 42: The Members to provide suggestions to the Secretariat about the mechanism for the effective use of the RHC statements by 30 November 2018.

Item 5.1.2 Termination of Govdex

Dr Sarkar

Dr Sarkar informed the Members that the Department of Finance is replacing Govdex with a new 'GovTEAMS'. The new service will allow for more flexibility and provide community administrators with options of creating open, semi-private or private communities. Govdex will close and switch to GovTEAMS early 2019.

Item 5.1.3 IAEA draft documents

Dr Sarkar

Dr Sarkar provided a list of IAEA draft documents. Particular attention was directed to draft documents: Specific Safety Guide: Preparedness and Response for an Emergency during Transport of Radioactive Material, DS469 (Revision of TS-G-1.2) and Specific Safety Guide: Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material (2018 Edition), DS 506 (revision of SSG-33). The Members were requested to provide comments on these documents.

Action 43: The Members to provide comment to the Secretariat by mid-November 2018.

Item 5.2 Next Meeting –March 2019

Dr Drummond

Dr Drummond closed the meeting by thanking Mr Cleaves for the excellent arrangements in hosting the RHC meeting in Melbourne.

The next RHC meeting will take place in Sydney, New South Wales, during 19-20 March 2019, at the invitation of the NSW Environment Protection Agency.

The meeting closed at 2:15 pm on 10 October 2018.



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Electromagnetic Energy Reference Group (EMERG)

Meeting Summary

- Date:** 23 October 2018
- Time:** 1.00pm – 5.00pm
- Location:** Board Room, 99 Commercial Rd, South Yarra
- Chair:** Dr Rick Tinker (ARPANSA)
- Members:** **ARPANSA** – Dr Gillian Hirth, Dr Ken Karipidis, Rohan Mate
Australian Centre for Electromagnetic Bioeffects Research/University of Wollongong
 (ACEBR/UOW) – Prof Rodney Croft, Dr Sarah Loughran
Australian Communications and Media Authority (ACMA) – Mr Cuong Nguyen
Australian Mobile Telecommunications Association (AMTA) / Mobile Carriers Forum (MCF)
 – Mr Ray McKenzie
Australasian Faculty of Occupational and Environmental Medicine – Dr Graeme Edwards
Castle Hill High School P&C – s 47F
Department of Communications and the Arts (DOCA) – Ms Chaudie Wong, Ms Danielle Day
National Health and Medical Research Council (NHMRC) – Ms Helen Tait
No Towers Near Schools – Mr Ian Gray
Safe Work Australia – Ms Jackii Shepherd
Stop Smart Meters Australia – Mr Steven Weller
University of Wollongong – A/Prof David Mercer
- Apologies:** Dr Carl-Magnus Larsson (ARPANSA), Mr Nathan Wahl (ARPANSA), Mr Colin Payne (ACMA), Dr Gary Lum (Department of Health),
- Secretariat:** Mr James Wheaton (ARPANSA)
- Invitees:** Dr Geza Benke (Monash University)
- Observers:** Ms Sharon Harrison (Monash University)

1. First Session:

1.1 Meeting open and confirmation of previous minutes Chair

The meeting opened at 2.07pm and the Chair welcomed everyone, thanking the host Monash University for providing facilities and arrangements. Apologies were noted. A short introduction to the radiofrequency (RF) electromagnetic energy (EME) research work of Monash University was provided. Minor amendments to the draft Minutes of 8 May 2018 were noted for changing and further final circulation.

Action 1: Amend draft 8 May 2018 meeting minutes as requested and re-circulate to group.

1.2 Update on action items Chair

The Chair reviewed the status of outstanding action items. There were no comments. Papers in response to two action items were presented to the group for consideration. These were: a request for ARPANSA to provide a response on the scientific evidence on oxidative stress as a key possible mechanism of biological damage by RF exposure; and, a request for ARPANSA to monitor developments on the RF label Supreme Court case in Berkley, California. Two members noted that they had hoped the response presented on the issue of oxidative stress would have included medical expertise. It was noted that resources required for medical expertise to review this issue would be prohibitive – the ‘biomarkers’ noted in some studies are problematic as health indicators as they do not necessarily translate into clinical endpoints.

1.3 Overview of International Commission on Non-Ionising Radiation Protection (ICNIRP) revised radiofrequency guidelines Prof R. Croft

A broad update on the state of the revised ICNIRP radiofrequency guidelines was presented. A question was posed on why certain limits in China and Russia are far more conservative – it was noted that this may be due to the standard point of measurement being far further from the EME source in those countries. A further question was posed about ICNIRP’s decision to go ahead and review the guidelines without waiting for further possible World Health Organisation (WHO) Environmental Health Criteria (EHC) input – it was noted that ICNIRP did look at some of the scientific issues and determined it was worth proceeding without input from the EHC review which remains unfunded indefinitely. It was asked whether 5G technology was a driving reason for the review, however it was noted that this was not a significant factor due to the extremely low exposure expected from this technology. The timeframe for public release of the guidelines, following consideration of public consultation comments, will be *approximately* May 2019.

1.4 Revision of Radiation Protection Series (RPS) No. 3 – *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields 3kHz to 300 GHz* Dr K. Karapidis

An update on the revised RPS No. 3 was provided to the group. It was noted following member questions that ARPANSA relies upon for international guidelines, with the substantial source as ICNIRP, and that the precautionary approach would not be included in the document at this stage. There will be targeted public consultation with final release due after the release of the ICNIRP guidelines.

Action 2: ARPANSA to give update on World Health Organisation Environmental Health Criteria.

2. Second Session: General Business

2.1 “For the record”

Mr S. Weller

A presentation was given highlighting a member’s history of matters brought before or discussed at the group since 2014, particularly around electromagnetic hypersensitivity (EHS). Among other issues, it quoted a past statement from ARPANSA that the agency does not have extensive medical (clinical) expertise, made claims that ARPANSA has misrepresented the science in its Technical Report 164, and highlighted a community database of studies purporting to show bio-effects from RF EME. It also claimed deficiencies in handling of public complaints, due to concerns allegedly remaining unaddressed, and a range of other matters allegedly being ignored, then critiqued a possible ‘nocebo effect’ explanation proposed previously.

NHMRC was criticised for its research funding allocation process, as was the alleged bias of ‘industry committed scientists’ who may have conflicts of interests in ICNIRP and studies. The presentation accused ARPANSA of underestimating the risk of ‘potential’ negative health effects of RF EME. A request was made to ‘involve’ the Radiation Health Committee and Radiation Health and Safety Advisory Council, two ARPANSA statutory bodies. A roadmap for the future from ARPANSA was also requested.

A group member provided a firm counter-view that being industry-resourced for research does not necessarily mean there is an ethical challenge. It was separately noted that ICNIRP has strong guidelines for avoiding conflicts of interest and no potential instances of conflict could be identified presently.

2.2 Unanswered Community and Scientific Concerns

s 47F

A paper was presented noting outstanding requests, including a request for the release of Australian population data, would be completed as far as possible shortly. The second request was that the group note Mobile Carriers Forum (MCF) position on the use of legal force by it or its members to acquire sites for wireless infrastructure – it was noted that MCF itself cannot use legal force, and that the deployment code is followed. It was noted that MCF expects that its members follow the provisions of any relevant law. The third issue of a request for ARPANSA to utilise the medical (clinical) expertise in the group to review studies on oxidative stress was discussed. Medical expertise members noted the size of the task meant this was unlikely – it was also noted ARPANSA does not have resources to undertake a full review of such studies.

2.3 ARPANSA Public & Media Enquiries Dashboards

Chair

A summary of recent public and media enquiries that ARPANSA has received was presented to the group.

2.4 Public Concerns

S. Weller

A member raised a number of concerns regarding alleged issues with ARPANSA’s approach to risk management including the precautionary approach, the proposed next steps on EHS, and ARPANSA’s identified research needs. It was noted that ARPANSA’s Corporate Plan contains a high level risk register. It was further noted that ARPANSA had recently engaged the Department of Health to discuss avenues available for further addressing the needs of members of the public that identify with EHS syndrome. It was further noted that ARPANSA has no plans to do a ‘whole of literature’ survey due to limited resources.

Action 3: Seek an update from the Department of Health on considerations of ways to address EHS.

2.5 EMERG Action Plan for 2018-2019

Chair

ARPANSA noted that relevant planning for a future EME program was currently underway, and being guided by the strategic priorities in ARPANSA's Corporate Plan (available on website publicly). It was noted that resources were limited to commit to many activities.

Action 4: ARPANSA to create an Action Plan for 2018-2019 including RPS public consultation and EME program review, including the role of EMERG, to be circulated with the draft minutes/meeting summary.

2.6 Other Business

Chair

The upcoming ACEBR Science and Wireless forum was noted. The harmonisation of ARPANSA's approaches to ionising and non-ionising radiation were discussed.

Action 5: ARPANSA to provide an update on harmonising its approach to ionising and non-ionising radiation at the next meeting.

Unclassified



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Electromagnetic Energy Reference Group (EMERG)

Meeting Summary

The Electromagnetic Energy Reference Group (EMERG) met on 23 October 2018 at ARPANSA's Melbourne office. EMERG comprises representatives from the community and industry as well as representatives from relevant government agencies and academic organisations.

Member organisations attending

Australian Centre for Electromagnetic Bio-effects Research, University of Wollongong (UOW), Australian Communications and Media Authority, Mobile Carriers Forum, Australian Mobile Telecommunications Association, Department of Communications and the Arts, National Health and Medical Research Council, Australasian Faculty of Occupational and Environmental Medicine, Castle Hill High School P&C, No Towers Near Schools, Safe Work Australia, Stop Smart Meters Australia.

Meeting open

The Chair welcomed everyone, thanking the host Monash University. A short introduction to the radiofrequency (RF) electromagnetic energy (EME) research work of Monash University was provided.

ARPANSA presented on the state of scientific evidence for oxidative stress as a possible mechanism for biological damage from RF exposure; and developments in the RF-label Supreme Court case in the US (Berkley, CA).

International Commission on Non-Ionising Radiation Protection (ICNIRP) revised RF guidelines

A broad update on the status of the revised ICNIRP RF guidelines was presented. It was noted that ICNIRP had considered an early draft of the World Health Organisation (WHO) Environmental Health Criteria (EHC) as well as the 2015 review by the Scientific Committee on Emerging and Newly Identified Health Risks. The anticipated timeframe for public release of the guidelines is *approximately* mid-2019.

Revision of Radiation Protection Series (RPS) No. 3 – *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields 3kHz to 300 GHz*

An update on the revised RPS No. 3 was provided to the group. It was noted that ARPANSA considered international best practice, such as the ICNIRP guidelines, in the development of RPS No. 3. There will be targeted public consultation with final release due after the release of the ICNIRP guidelines.

Unclassified

Electromagnetic Hyper-Sensitivity (EHS)

A member presented a summary of matters previously brought before or discussed at the group since 2014, particularly around EHS, noting a request for greater input from medical (clinical) expertise on the issue. ARPANSA noted epidemiology is a core science of public health.

The member also raised conflicts of interest in research as a concern. Others noted that industry-resources for research do not necessarily present an ethical challenge. It was also noted ICNIRP has strong guidelines for avoiding conflicts of interest and no potential instances of conflict could be identified presently.

It was later noted that ARPANSA had recently engaged the Department of Health to discuss avenues available for further addressing the needs of members of the public that identify with EHS syndrome.

Incidence rates of brain tumours

The release of Australian population data on incidence rates of brain tumours was discussed. ARPANSA confirmed a study on this has been conducted and a paper has been submitted to a peer-reviewed journal.

Deployment of wireless infrastructure

It was noted that the Mobile Carriers Forum is not a legal entity and cannot use legal force to acquire sites for wireless infrastructure, and its members comply with any relevant law and the deployment code.

Use of medical expertise

A request was made to utilise the medical (clinical) expertise in EMERG to review studies on oxidative stress. Members with medical expertise noted the size of the task meant this was unlikely, also noting ARPANSA does not have resources to undertake a full systematic review of the studies.

ARPANSA Public & Media Enquiries dashboards

A summary of recent public and media enquiries that ARPANSA has received was presented to the group.

Risk management

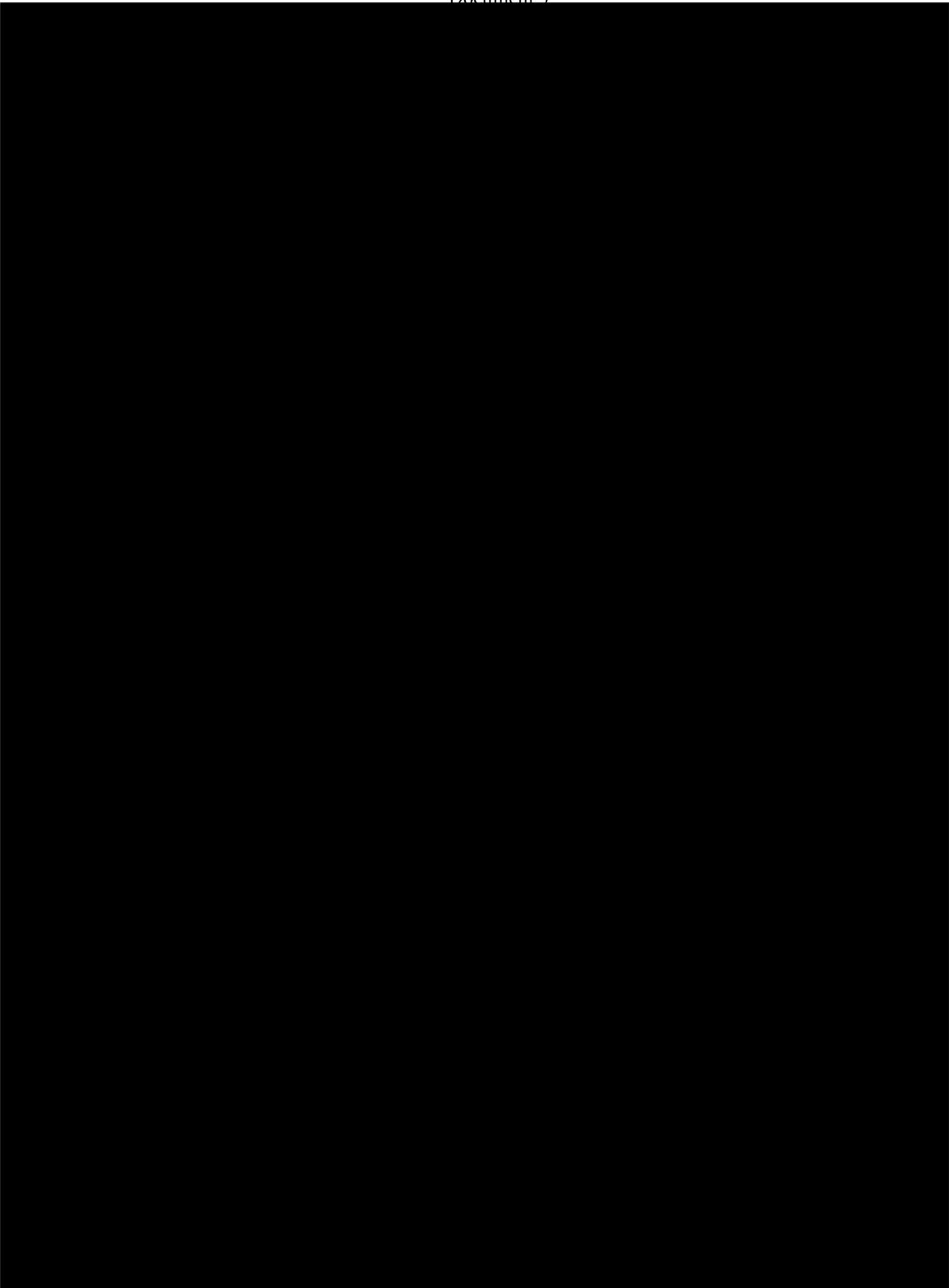
ARPANSA's approach to risk management was also discussed, noting that ARPANSA's Corporate Plan contains a high level risk register.

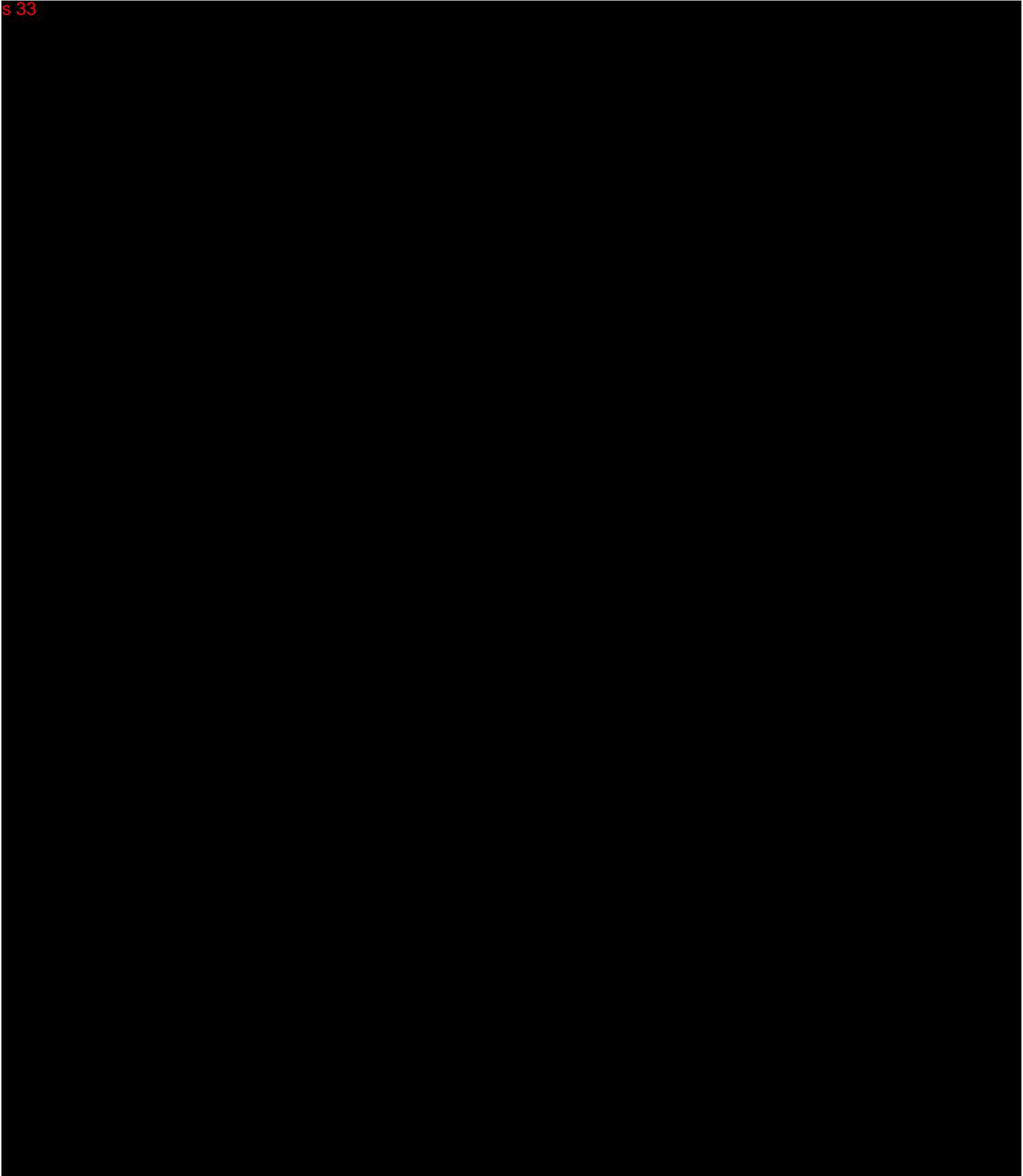
EMERG Action Plan for 2018-2019

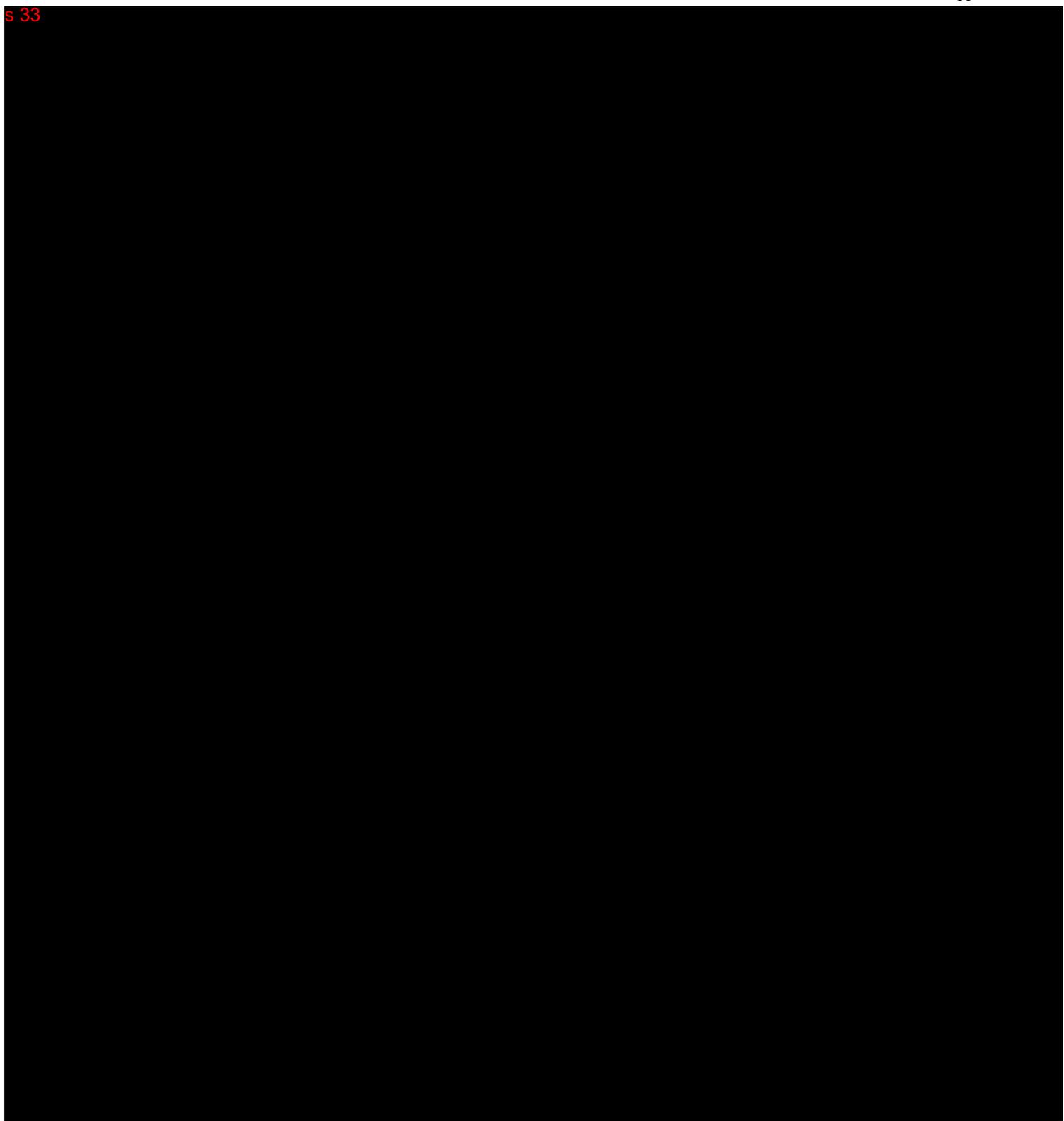
ARPANSA noted that relevant planning for a future EME program was currently underway, and being guided by the strategic priorities in ARPANSA's Corporate Plan available at www.arpansa.gov.au. It was noted that resources were limited to commit to many activities.

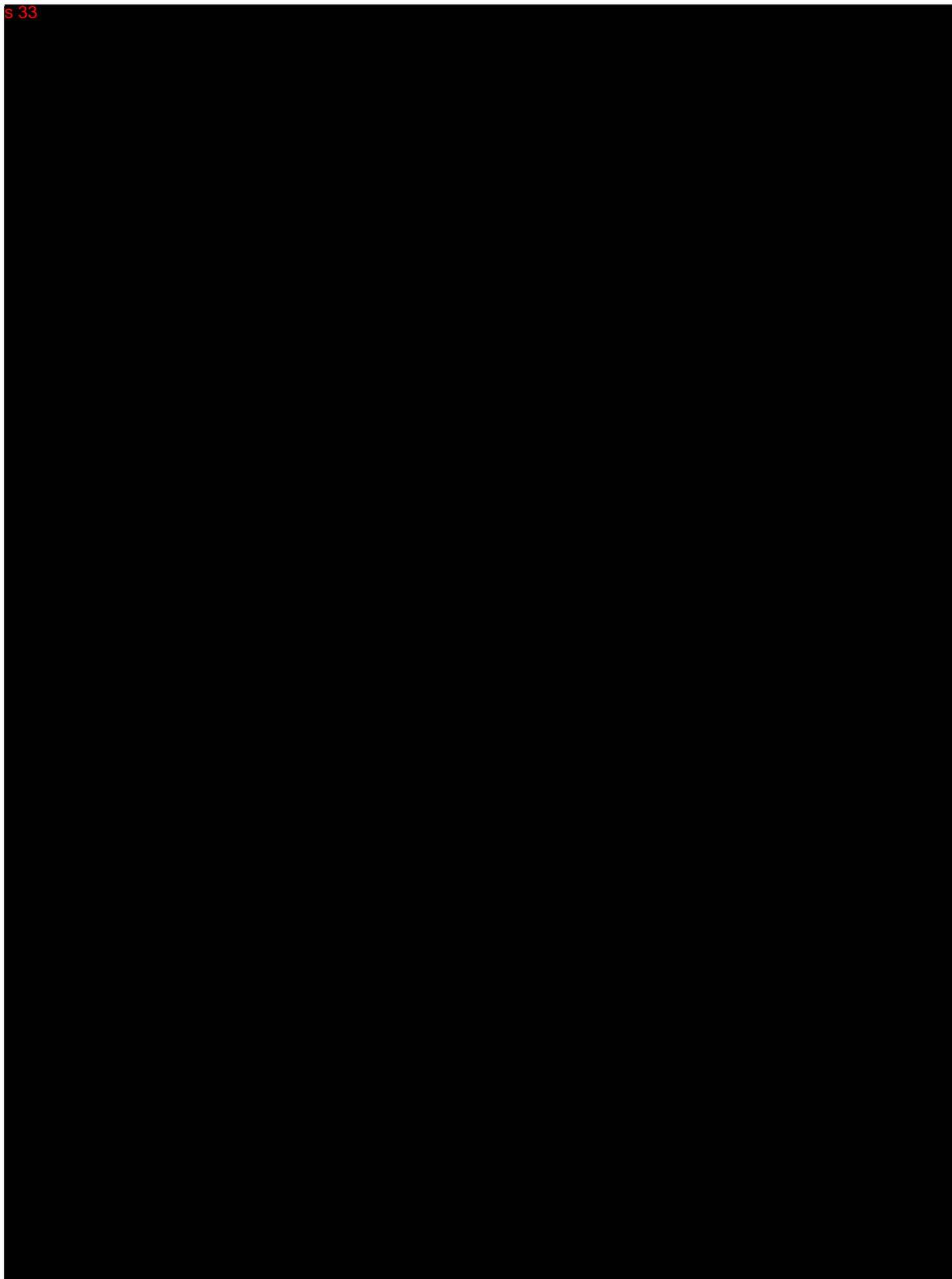
Other business

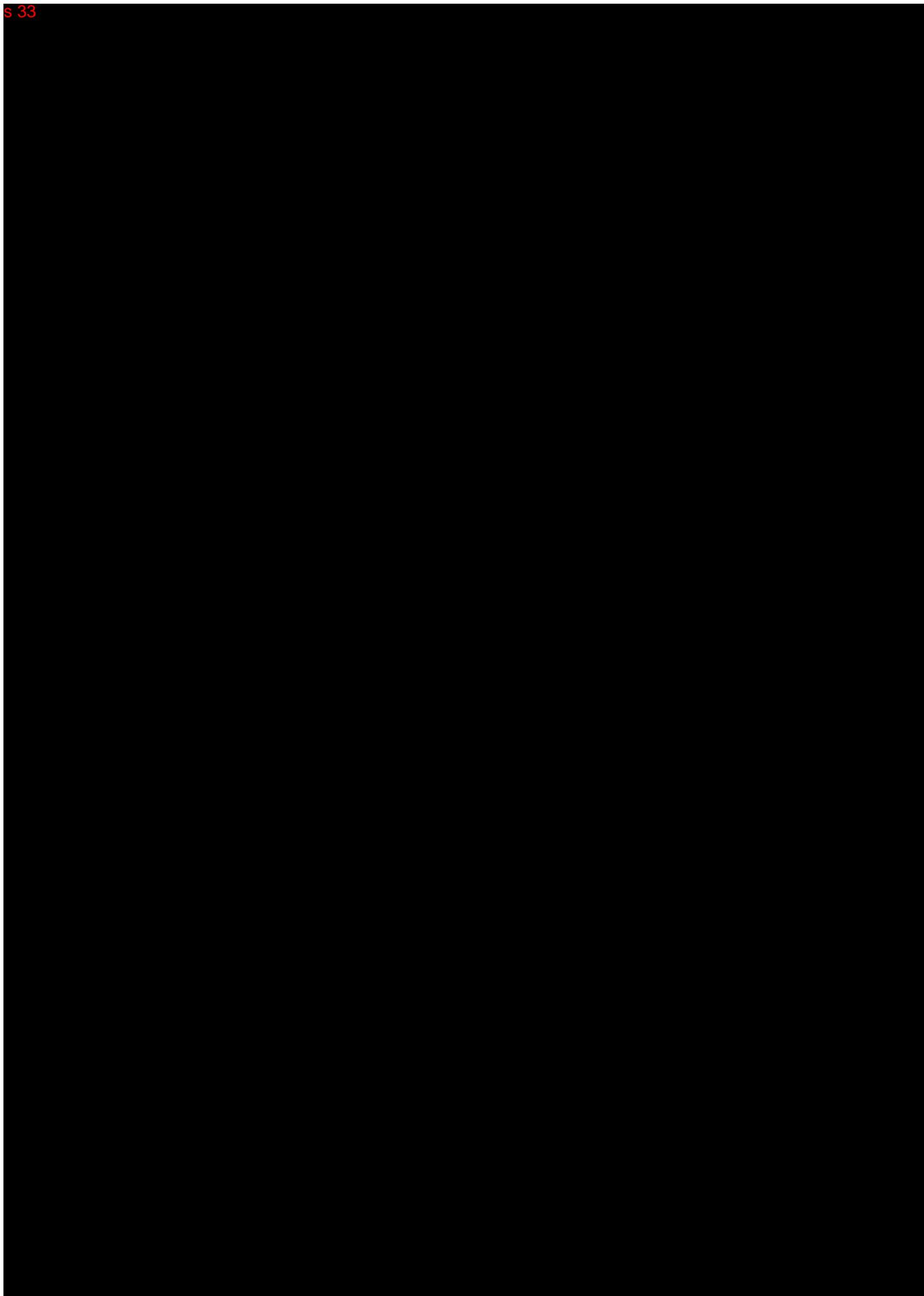
The upcoming Australian Centre for Electromagnetic Bio-effects Research Science and Wireless forum was noted. The harmonisation of ARPANSA's approaches to ionising and non-ionising radiation were also discussed.

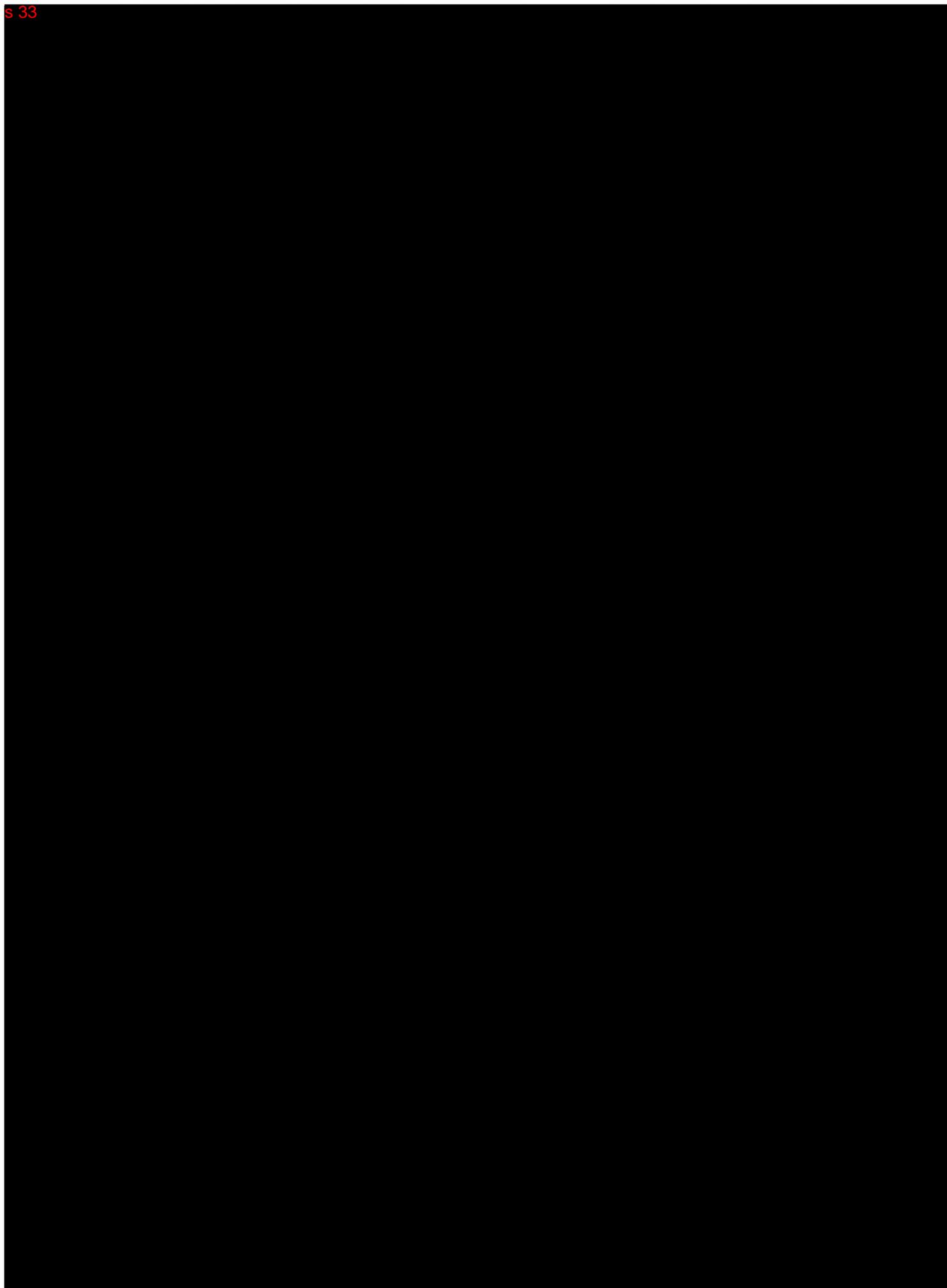


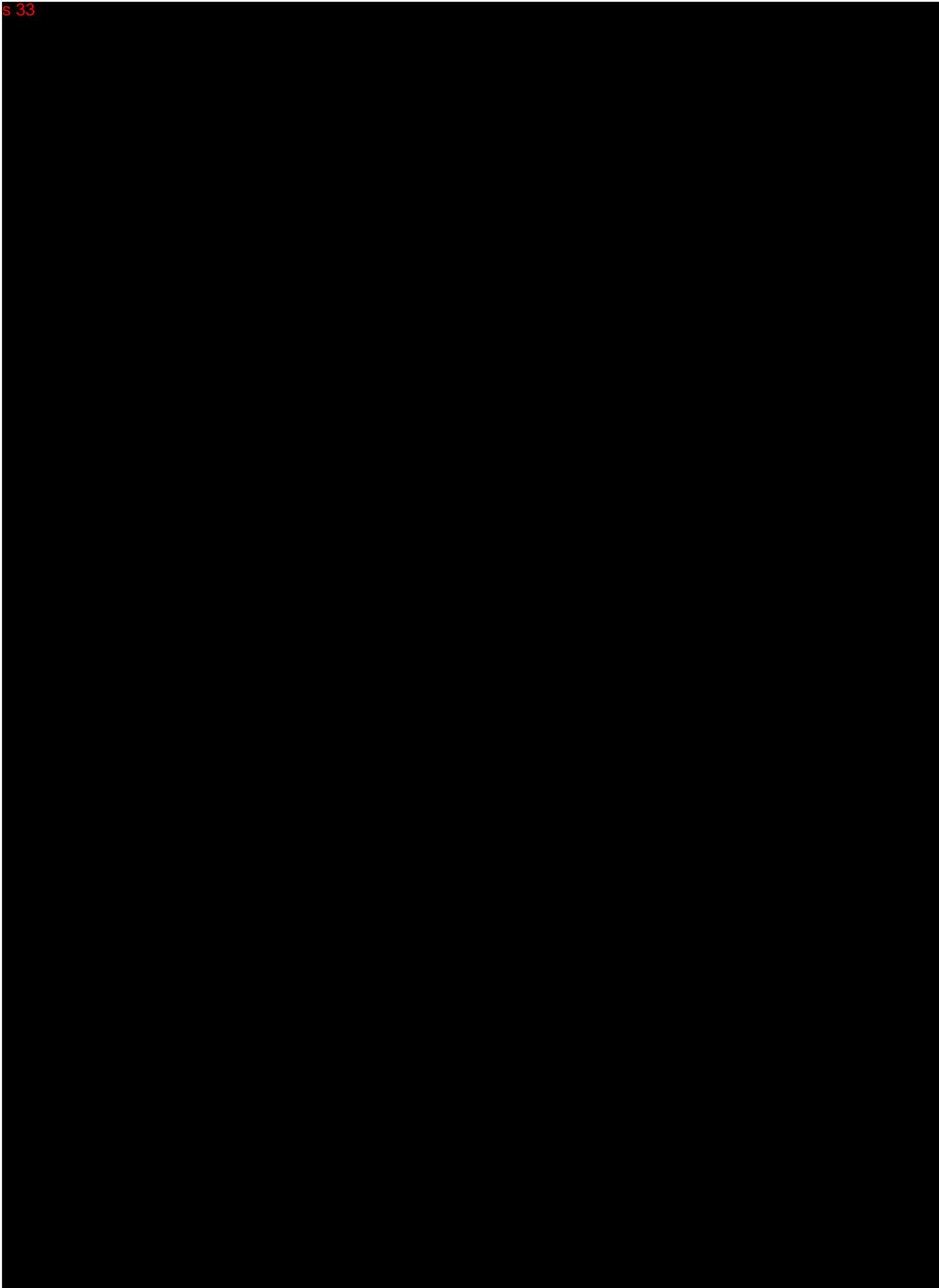


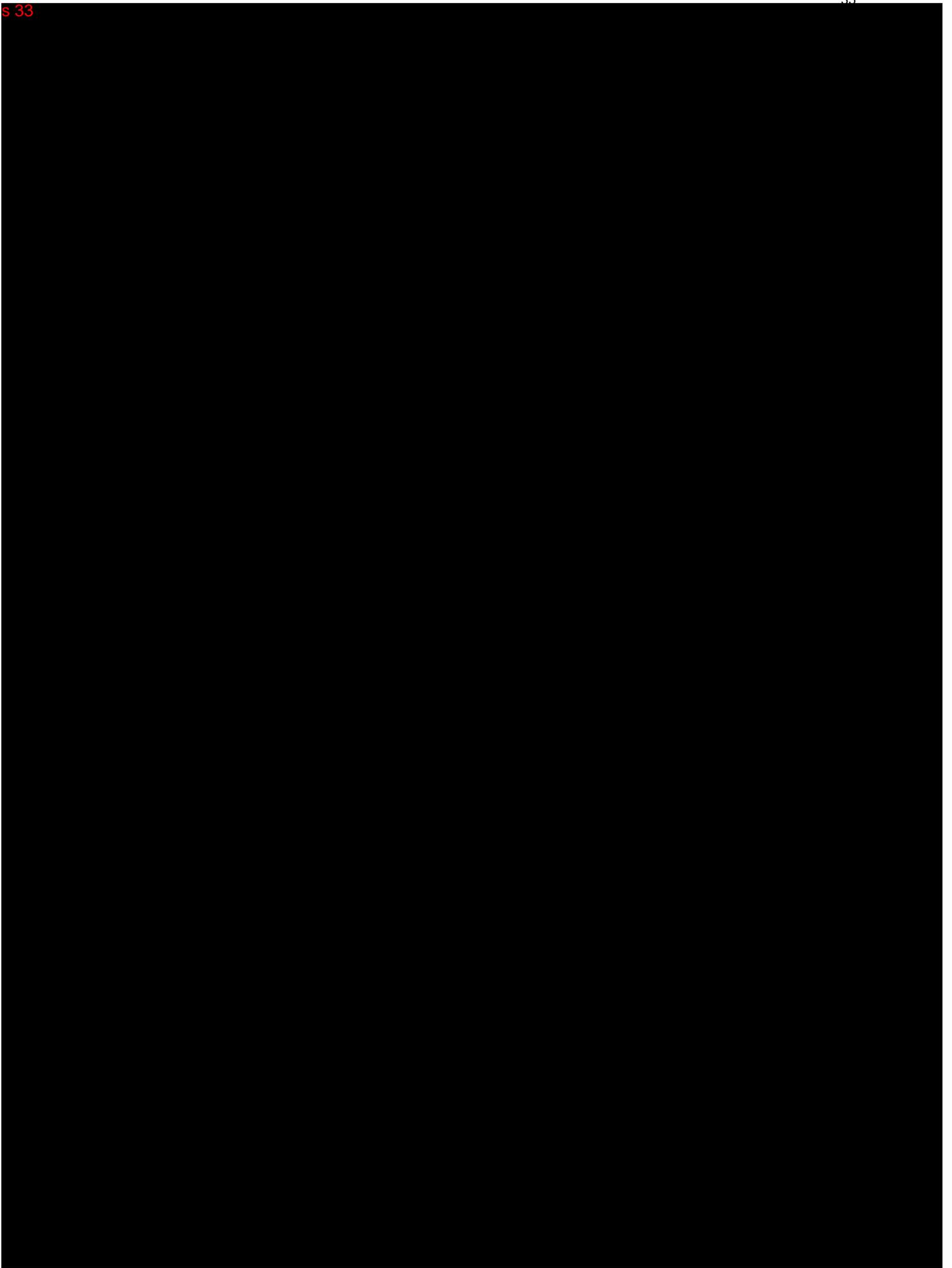


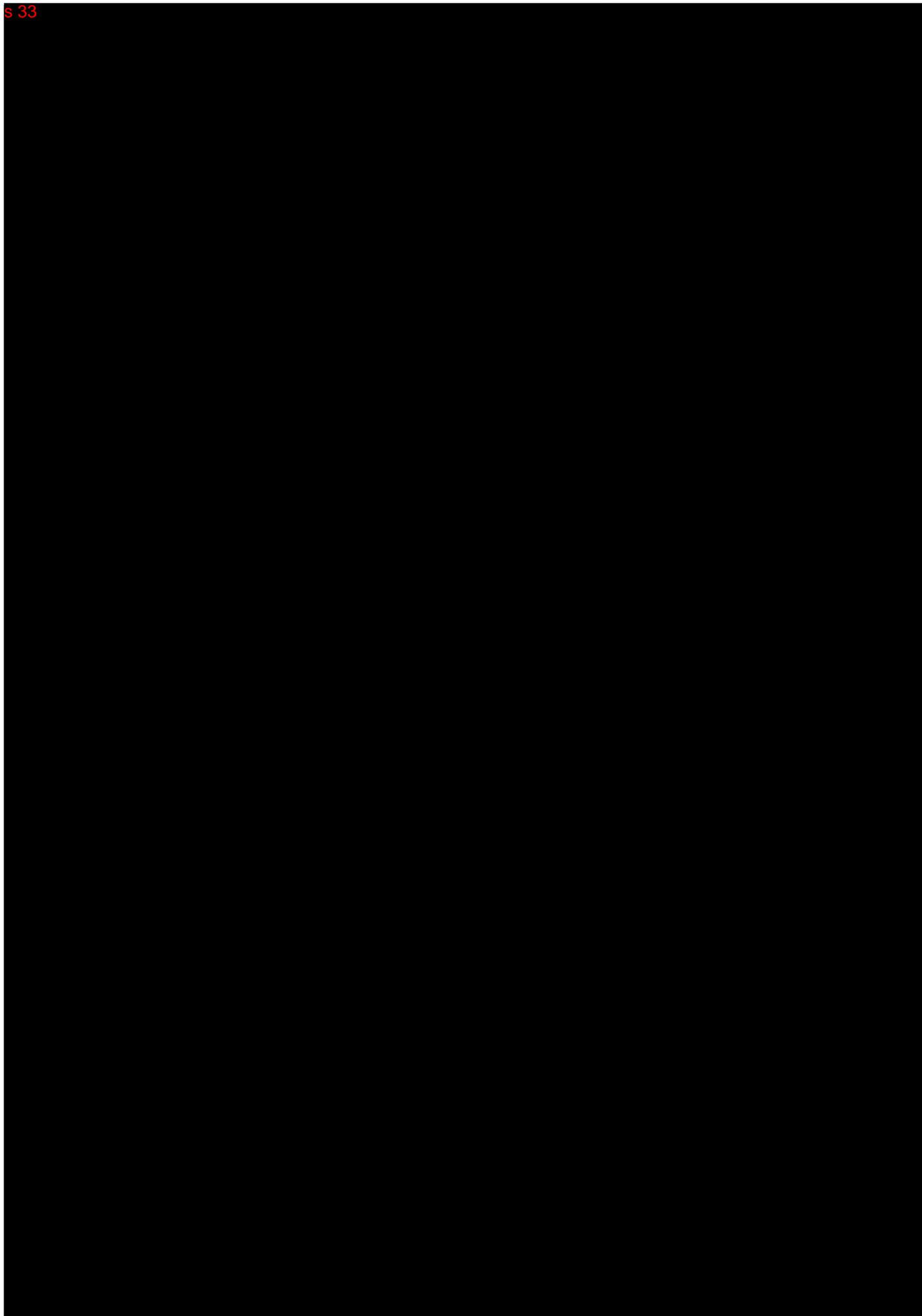


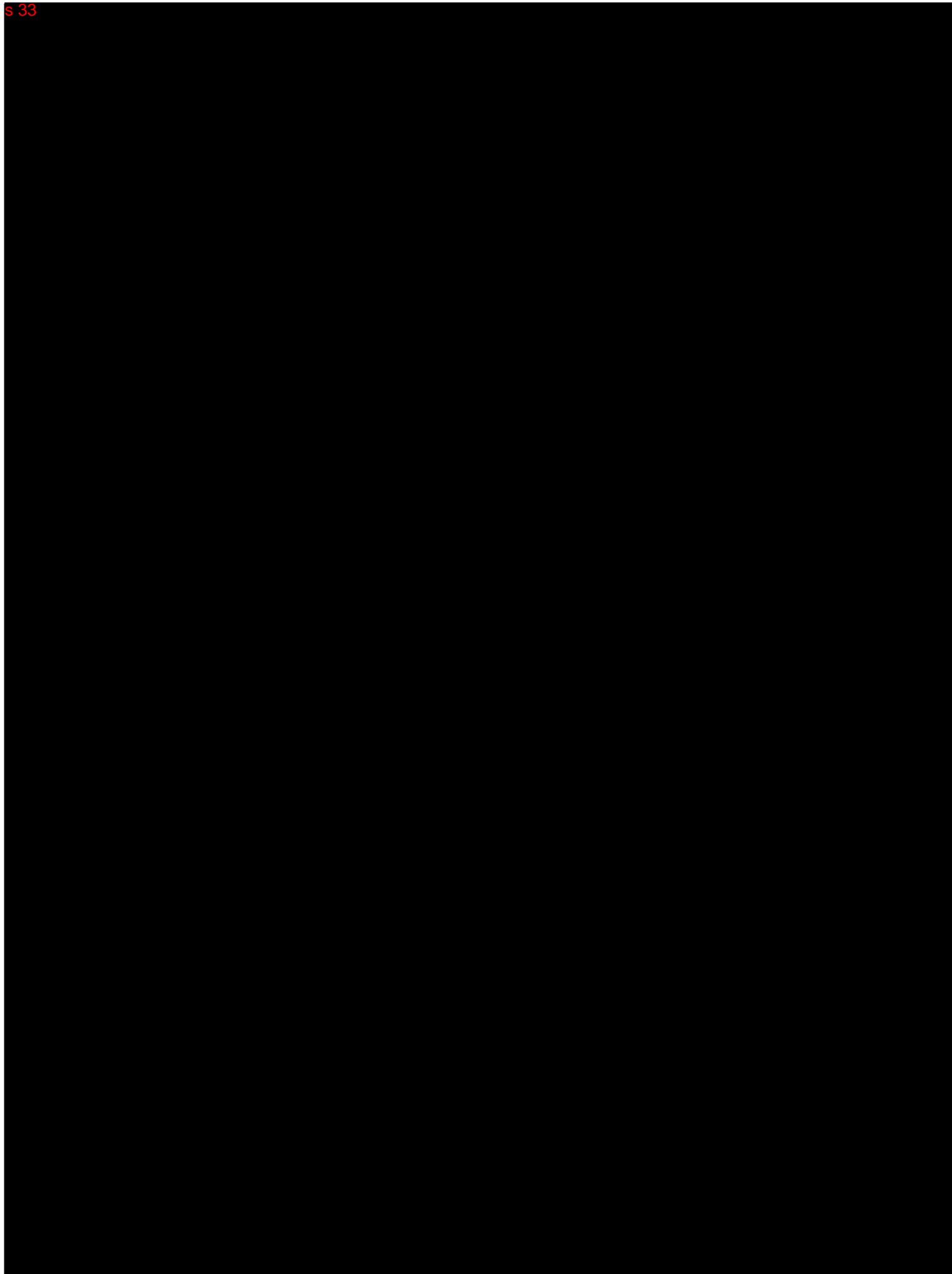


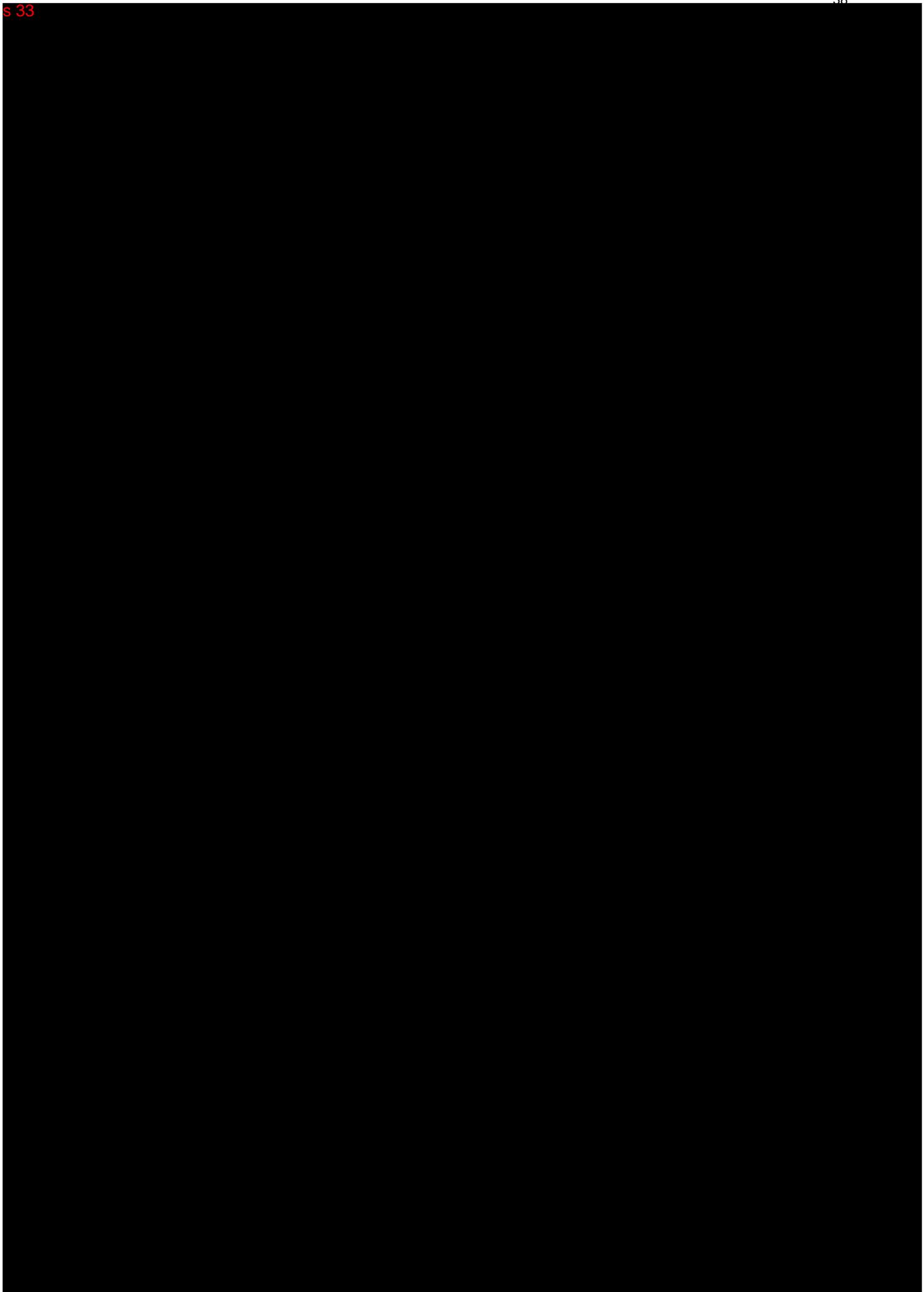


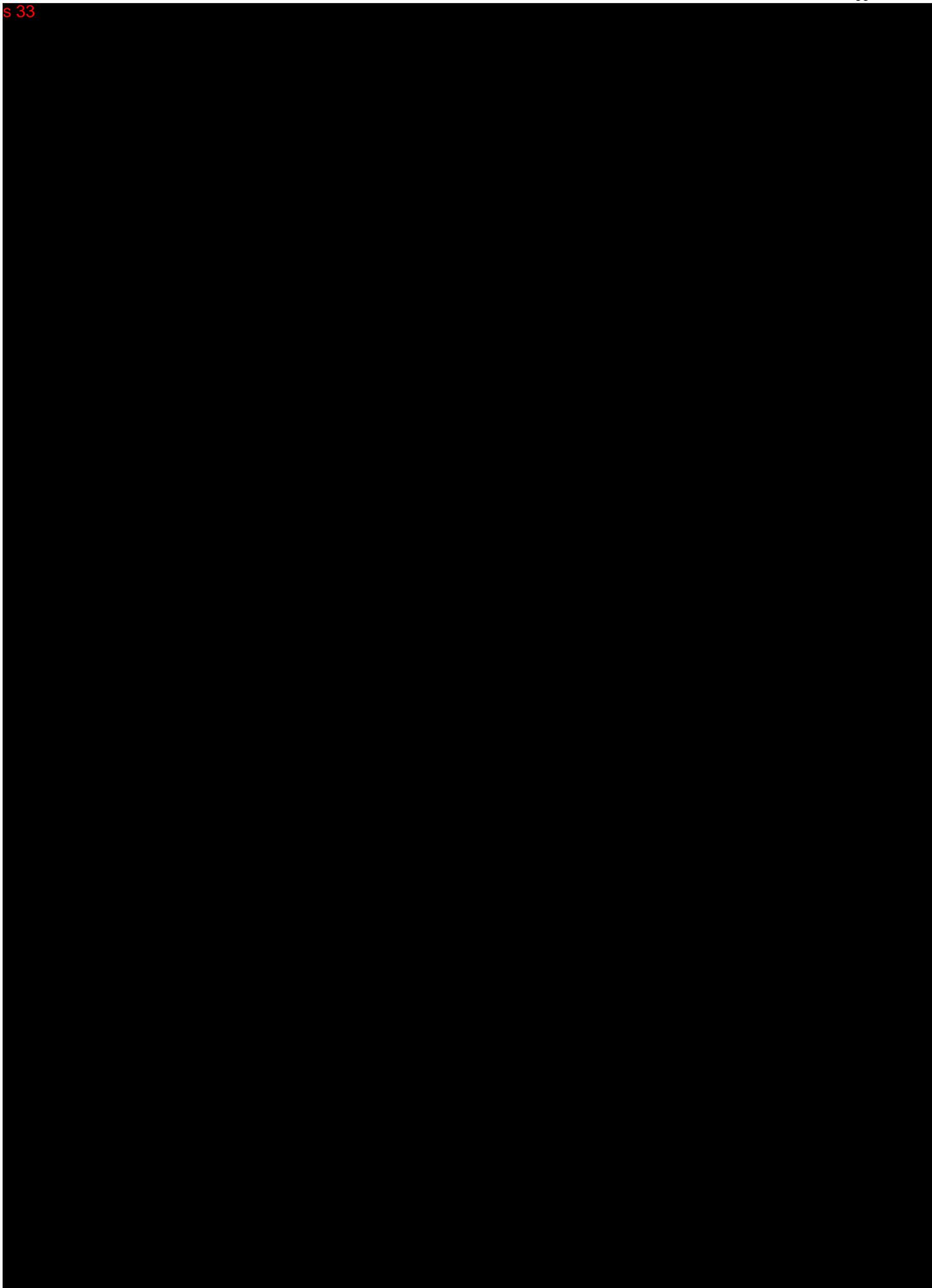


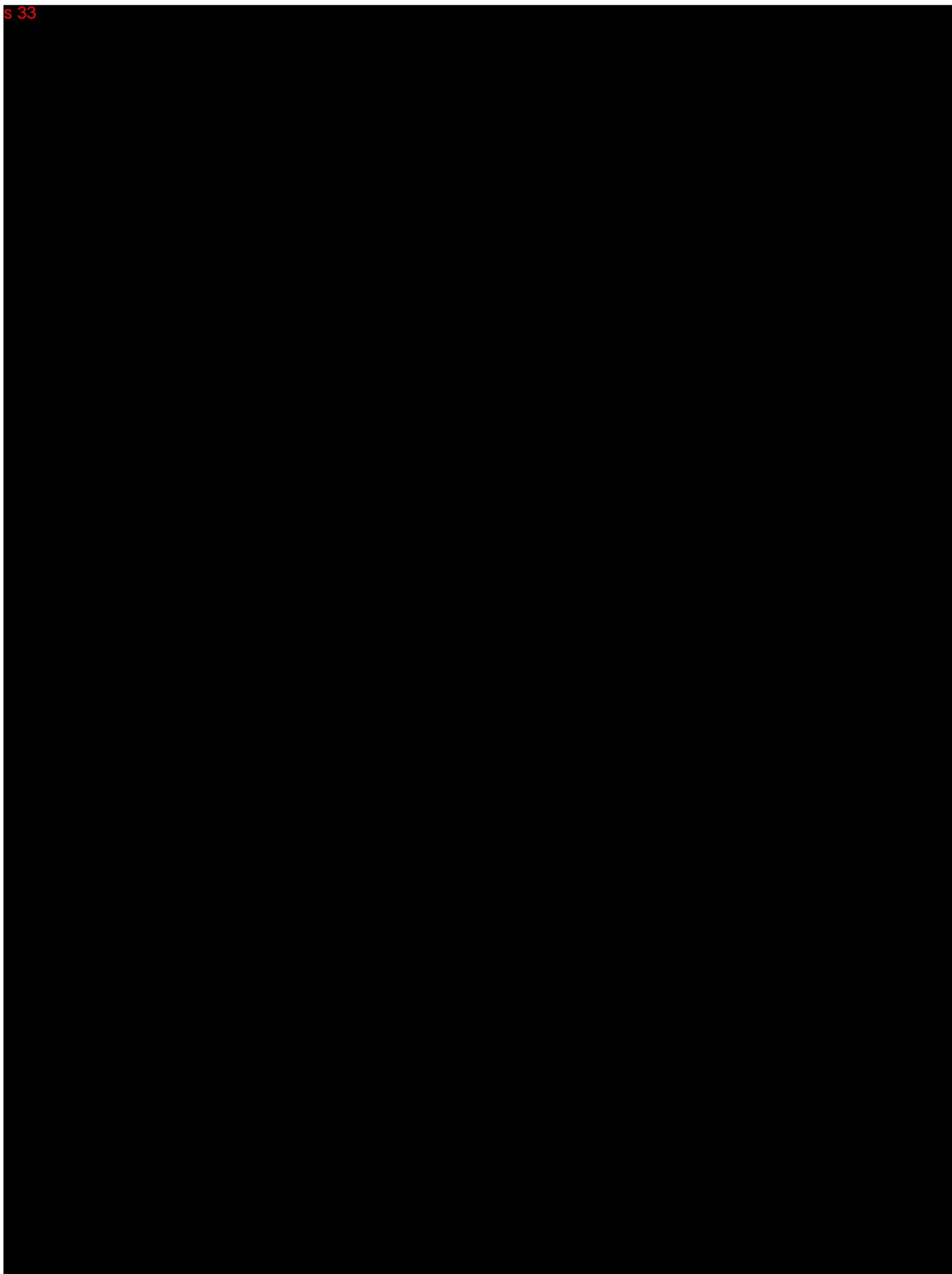




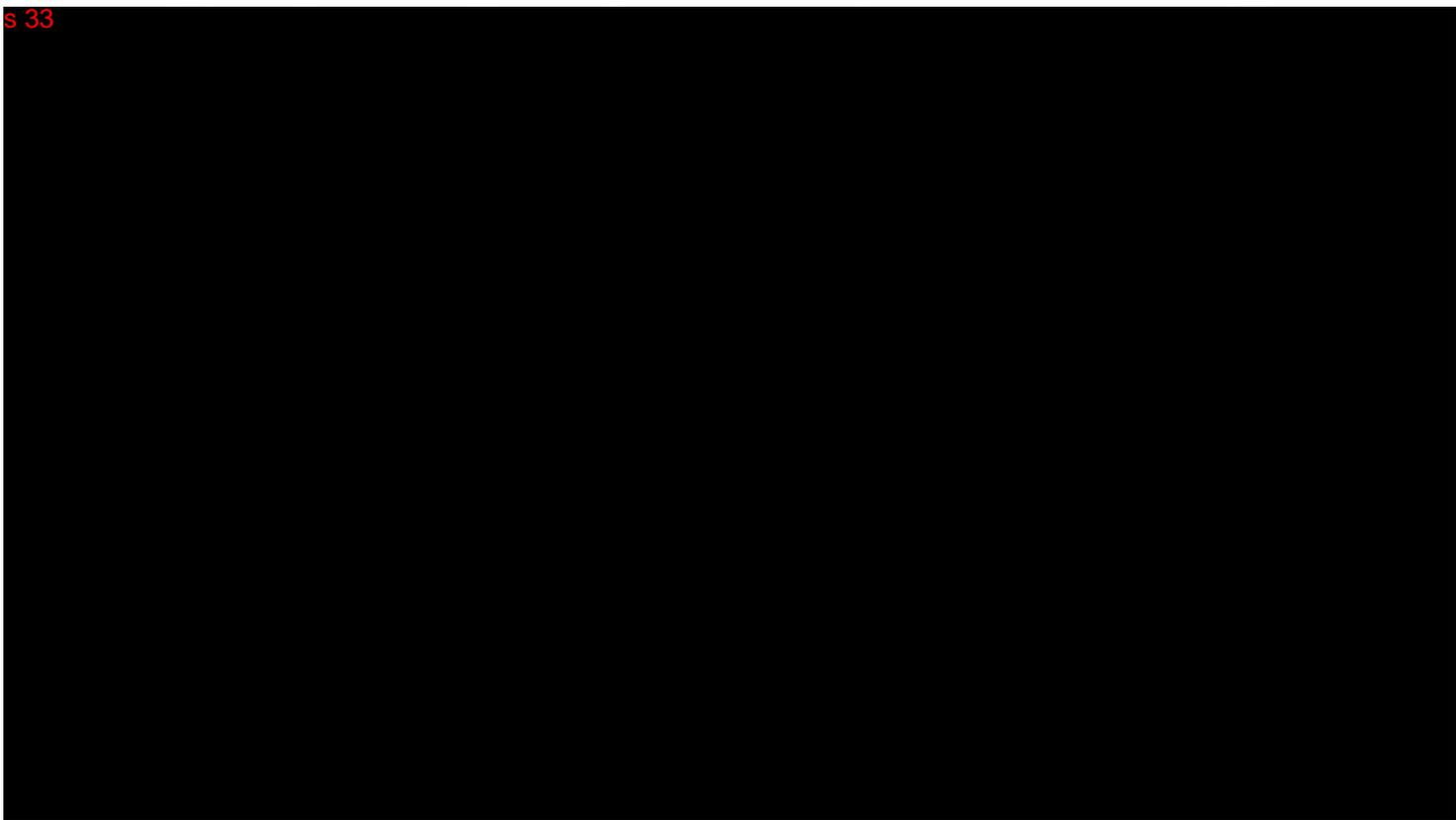


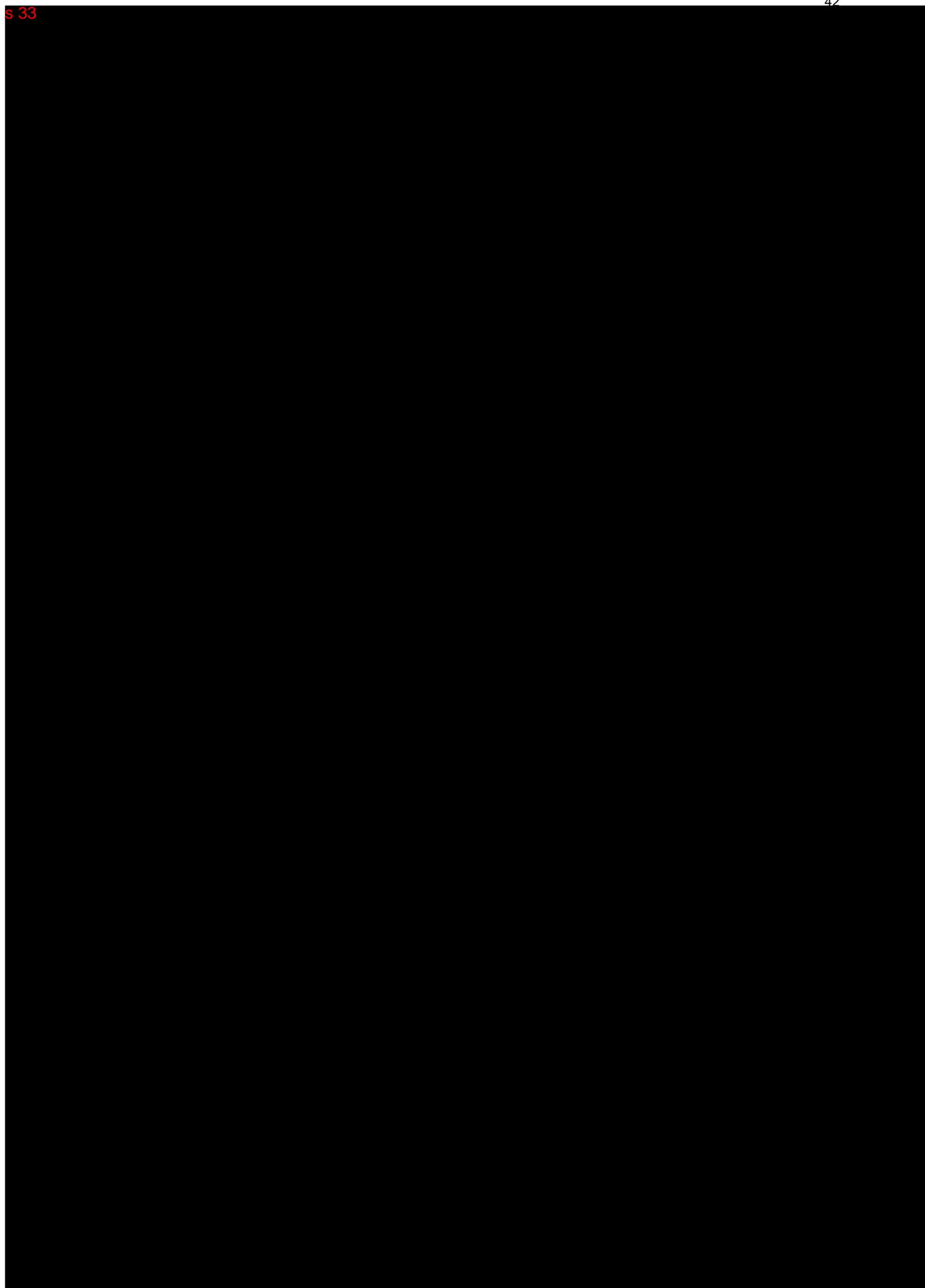




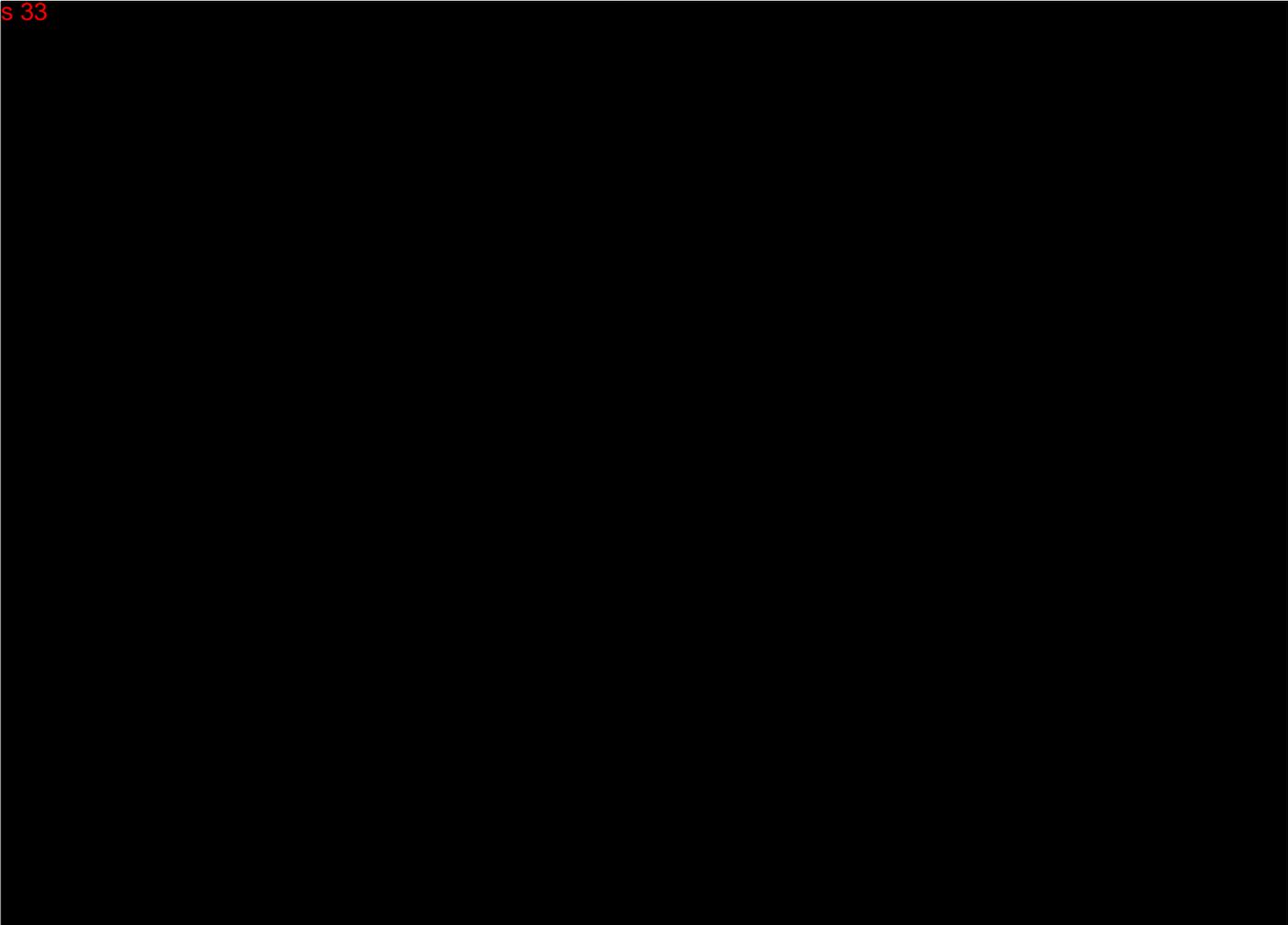


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