Forward compatibility of text_encoding with additional encoding registries

Introduction
As currently proposed [1], text_encoding refers only to the Internet Assigned Numbers Authority (IANA) Character Sets database [2]. This registry is known to be incomplete and, in some respects, does not provide a perfect match to the requirements of C++ [2]. It is possible that future enhancements to text_encoding may wish to refer to additional/alternative registries.

Alter the names of text_encoding facilities that directly map IANA database data to explicitly reference iana.

Design
Do not rename aliases()
The text_encoding::aliases() member function currently returns a range of alternative names for a particular text_encoding. Although this range is required to include the aliases registered with IANA, it may also include additional, implementation-defined aliases.

This means that there is no need to rename this to iana_aliases(); the contract is already sufficiently wide to accommodate aliases from other registries.

Normative guidance for future compatibility
Currently, the exposition-only member variables of text_encoding contain only a text_encoding::id without scope for disambiguation of IDs or the capacity for representing non-IANA IDs, if required in the future.

This is adequate for now. However, we should provide normative guidance that implementors should consider the possibility of additional/alternative text encoding registries being used in the future and make accommodations in the layout of text_encoding. This will prevent any such evolution from being blocked due to ABI concerns.

Proposed wording
Editing notes
All wording is relative to P1885R8 [1].

[text.encoding]
Throughout this section:

1. Rename text_encoding::id to text_encoding::iana_id and update all references to this type accordingly.
2. Rename text_encoding::mib() to text_encoding::iana_mib() and update all references to this member function accordingly.

Add an additional item of ‘recommended practice’:
When defining the member variables and layout of `text_encoding`, implementations should consider the possibility that future revisions of this standard may reference additional or alternative text encoding registries.

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References

