

9—LINEATION

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.1	Approximate plunge direction of inclined generic (origin or type not known or not specified) lineation or linear structure (1st option)		lineweight .2 mm 	Open-arrowed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation.
9.2	Approximate plunge direction of inclined generic (origin or type not known or not specified) lineation or linear structure (2nd option)		all lineweights .2 mm 	
9.3	Inclined generic (origin or type not known or not specified) lineation or linear structure (1st option)—Showing bearing and plunge			Lineation symbols may be used separately or combined with other symbols.
9.4	Inclined generic (origin or type not known or not specified) lineation or linear structure (2nd option)—Showing bearing and plunge			
9.5	Horizontal generic (origin or type not known or not specified) lineation or linear structure (1st option)—Showing bearing		lineweight .2 mm 	For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line.
9.6	Horizontal generic (origin or type not known or not specified) lineation or linear structure (2nd option)—Showing bearing		all lineweights .2 mm 	
9.7	Vertical or near-vertical generic (origin or type not known or not specified) lineation or linear structure (1st option)		all lineweights .2 mm 	For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation.
9.8	Vertical or near-vertical generic (origin or type not known or not specified) lineation or linear structure (2nd option)			
9.9	Inclined parting lineation in sedimentary materials (1st option)—Showing bearing and plunge		all lineweights .2 mm 	For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.10	Inclined parting lineation in sedimentary materials (2nd option)—Showing bearing and plunge			
9.11	Horizontal parting lineation in sedimentary materials (1st option)—Showing bearing		all lineweights .2 mm 	
9.12	Horizontal parting lineation in sedimentary materials (2nd option)—Showing bearing			
9.13	Inclined sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (1st option)—Showing bearing and plunge		2.0 mm lineweight .2 mm 	
9.14	Inclined sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (2nd option)—Showing bearing and plunge		all lineweights .2 mm 	
9.15	Horizontal sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (1st option)—Showing bearing		2.0 mm lineweight .2 mm 	
9.16	Horizontal sole mark, tool mark, scour mark, flute mark, groove, or channel in sedimentary materials (2nd option)—Showing bearing		all lineweights .2 mm 	
9.17	Inclined slickenline, groove, or striation on fault surface (1st option)—Showing bearing and plunge		lineweight .2 mm 	
9.18	Inclined slickenline, groove, or striation on fault surface (2nd option)—Showing bearing and plunge		all lineweights .2 mm 	
9.19	Horizontal slickenline, groove, or striation on fault surface (1st option)—Showing bearing		lineweight .2 mm 	
9.20	Horizontal slickenline, groove, or striation on fault surface (2nd option)—Showing bearing		all lineweights .2 mm 	
9.21	Inclined surface groove or striation (origin not known or not specified) (1st option)—Showing bearing and plunge		all lineweights .2 mm 	
9.22	Inclined surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing and plunge			
9.23	Horizontal surface groove or striation (origin not known or not specified) (1st option)—Showing bearing		all lineweights .2 mm 	
9.24	Horizontal surface groove or striation (origin not known or not specified) (2nd option)—Showing bearing			

*For more information, see general guidelines on pages A-i to A-v.

9—LINEATION (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.25	Inclined aligned-object lineation (1st option)— Showing bearing and plunge		dot diameter 1.0 mm line weight .2 mm	Open-armed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation.
9.26	Inclined aligned-object lineation (2nd option)— Showing bearing and plunge		all lineweights .2 mm	
9.27	Horizontal aligned-object lineation (1st option)— Showing bearing		dot diameter 1.0 mm line weight .2 mm	Lineation symbols may be used separately or combined with other symbols.
9.28	Horizontal aligned-object lineation (2nd option)— Showing bearing		all lineweights .2 mm	
9.29	Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing and plunge		2.425 mm line weight .2 mm	For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line.
9.30	Inclined aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing bearing and plunge		all lineweights .2 mm	
9.31	Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (1st option)—Showing bearing		2.425 mm line weight .2 mm	For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation.
9.32	Horizontal aligned-clast or aligned-grain lineation (in sedimentary materials) (2nd option)—Showing bearing		all lineweights .2 mm	
9.33	Inclined aligned-inclusion lineation (in igneous rocks) (1st option)—Showing bearing and plunge		circle diameter 1.0 mm all lineweights .2 mm	For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.34	Inclined aligned-inclusion lineation (in igneous rocks) (2nd option)—Showing bearing and plunge		all lineweights .2 mm	
9.35	Horizontal aligned-inclusion lineation (in igneous rocks) (1st option)—Showing bearing		circle diameter 1.0 mm all lineweights .2 mm	
9.36	Horizontal aligned-inclusion lineation (in igneous rocks) (2nd option)—Showing bearing		all lineweights .2 mm	
9.37	Inclined aligned-mineral lineation (1st option)— Showing bearing and plunge		1.0 mm line weight .2 mm	
9.38	Inclined aligned-mineral lineation (2nd option)— Showing bearing and plunge		all lineweights .2 mm	
9.39	Horizontal aligned-mineral lineation (1st option)— Showing bearing		1.0 mm line weight .2 mm	
9.40	Horizontal aligned-mineral lineation (2nd option)— Showing bearing		all lineweights .2 mm	
9.41	Inclined aligned mineral-aggregate lineation (1st option)—Showing bearing and plunge		.75 mm line weight .2 mm	
9.42	Inclined aligned mineral-aggregate lineation (2nd option)—Showing bearing and plunge		all lineweights .2 mm	
9.43	Horizontal aligned mineral-aggregate lineation (1st option)—Showing bearing		.75 mm line weight .2 mm	
9.44	Horizontal aligned mineral-aggregate lineation (2nd option)—Showing bearing		all lineweights .2 mm	
9.45	Inclined aligned deformed-mineral lineation (1st option)—Showing bearing and plunge		2.75 mm line weight .2 mm	
9.46	Inclined aligned deformed-mineral lineation (2nd option)—Showing bearing and plunge		all lineweights .2 mm	
9.47	Horizontal aligned deformed-mineral lineation (1st option)—Showing bearing		2.75 mm line weight .2 mm	
9.48	Horizontal aligned deformed-mineral lineation (2nd option)—Showing bearing		all lineweights .2 mm	

*For more information, see general guidelines on pages A-i to A-v.

9—LINEATION (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.49	Inclined aligned stretched-object lineation (1st option)—Showing bearing and plunge			Open-arrowed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation.
9.50	Inclined aligned stretched-object lineation (2nd option)—Showing bearing and plunge			
9.51	Horizontal aligned stretched-object lineation (1st option)—Showing bearing			Lineation symbols may be used separately or combined with other symbols.
9.52	Horizontal aligned stretched-object lineation (2nd option)—Showing bearing			
9.53	Inclined aligned stretched-pebble lineation (1st option)—Showing bearing and plunge			For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line.
9.54	Inclined aligned stretched-pebble lineation (2nd option)—Showing bearing and plunge			
9.55	Horizontal aligned stretched-pebble lineation (1st option)—Showing bearing			For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation.
9.56	Horizontal aligned stretched-pebble lineation (2nd option)—Showing bearing			
9.57	Inclined aligned stretched-oid lineation (1st option)—Showing bearing and plunge			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.58	Inclined aligned stretched-oid lineation (2nd option)—Showing bearing and plunge			
9.59	Horizontal aligned stretched-oid lineation (1st option)—Showing bearing			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.60	Horizontal aligned stretched-oid lineation (2nd option)—Showing bearing			
9.61	Inclined rodding (1st option)—Showing bearing and plunge			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.62	Inclined rodding (2nd option)—Showing bearing and plunge			
9.63	Horizontal rodding (1st option)—Showing bearing			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.64	Horizontal rodding (2nd option)—Showing bearing			
9.65	Inclined mullions (1st option)—Showing bearing and plunge			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.66	Inclined mullions (2nd option)—Showing bearing and plunge			
9.67	Horizontal mullions (1st option)—Showing bearing			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.68	Horizontal mullions (2nd option)—Showing bearing			
9.69	Inclined boudins (1st option)—Showing bearing and plunge			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.70	Inclined boudins (2nd option)—Showing bearing and plunge			
9.71	Horizontal boudins (1st option)—Showing bearing			For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.72	Horizontal boudins (2nd option)—Showing bearing			

*For more information, see general guidelines on pages A-i to A-v.

9—LINEATION (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.73	Inclined pencil structure (1st option)—Showing bearing and plunge		all lineweights .2 mm 	Open-arrowed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation.
9.74	Inclined pencil structure (2nd option)—Showing bearing and plunge			
9.75	Horizontal pencil structure (1st option)—Showing bearing		all lineweights .2 mm 	Lineation symbols may be used separately or combined with other symbols.
9.76	Horizontal pencil structure (2nd option)—Showing bearing			
9.77	Inclined lineation at intersection of bedding and cleavage (1st option)—Showing bearing and plunge		all lineweights .2 mm 	For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line.
9.78	Inclined lineation at intersection of bedding and cleavage (2nd option)—Showing bearing and plunge			
9.79	Horizontal lineation at intersection of bedding and cleavage (1st option)—Showing bearing		all lineweights .2 mm 	For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation.
9.80	Horizontal lineation at intersection of bedding and cleavage (2nd option)—Showing bearing			
9.81	Inclined lineation at intersection of two cleavages (1st option)—Showing bearing and plunge		all lineweights .2 mm 	For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation.
9.82	Inclined lineation at intersection of two cleavages (2nd option)—Showing bearing and plunge			
9.83	Horizontal lineation at intersection of two cleavages (1st option)—Showing bearing		all lineweights .2 mm 	
9.84	Horizontal lineation at intersection of two cleavages (2nd option)—Showing bearing			
9.85	Inclined lineation at intersection of two fractures or joints (1st option)—Showing bearing and plunge		all lineweights .2 mm 	
9.86	Inclined lineation at intersection of two fractures or joints (2nd option)—Showing bearing and plunge			
9.87	Horizontal lineation at intersection of two fractures or joints (1st option)—Showing bearing		all lineweights .2 mm 	
9.88	Horizontal lineation at intersection of two fractures or joints (2nd option)—Showing bearing			
9.89	Inclined lineation at intersection of two foliations (1st option)—Showing bearing and plunge		all lineweights .2 mm 	
9.90	Inclined lineation at intersection of two foliations (2nd option)—Showing bearing and plunge			
9.91	Horizontal lineation at intersection of two foliations (1st option)—Showing bearing		all lineweights .2 mm 	
9.92	Horizontal lineation at intersection of two foliations (2nd option)—Showing bearing			
9.93	Inclined lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing and plunge		all lineweights .2 mm 	
9.94	Inclined lineation at intersection of two surfaces (origin or type unspecified) (2nd option)—Showing bearing and plunge			
9.95	Horizontal lineation at intersection of two surfaces (origin or type unspecified) (1st option)—Showing bearing		all lineweights .2 mm 	
9.96	Horizontal lineation at intersection of two surfaces (origin or type unspecified) (2nd option)—Showing bearing			

*For more information, see general guidelines on pages A-i to A-v.

9—LINEATION (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.97	Inclined fold hinge of generic (type or orientation unspecified) small, minor fold (1st option)—Showing bearing and plunge		dot diameter .5 mm color 100% magenta 2.75 mm 6.0 mm HI-6 (100% black) 20 25° 1.25 mm lineweight .2 mm	Open-armed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation. Lineation symbols may be used separately or combined with other symbols. For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line. For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation. For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation. May also be shown in black or other colors.
9.98	Inclined fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option)—Showing bearing and plunge		all lineweights .2 mm	
9.99	Horizontal fold hinge of generic (type or orientation unspecified) small, minor fold (1st option)—Showing bearing		dot diameter .5 mm 2.75 mm 6.0 mm 25° 1.25 mm lineweight .2 mm color 100% magenta	
9.100	Horizontal fold hinge of generic (type or orientation unspecified) small, minor fold (2nd option)—Showing bearing		all lineweights .2 mm	
9.101	Inclined fold hinge of small, minor penecontemporaneous soft-sediment fold (1st option)—Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown	
9.102	Inclined fold hinge of small, minor penecontemporaneous soft-sediment fold (2nd option)—Showing bearing and plunge			
9.103	Horizontal fold hinge of small, minor penecontemporaneous soft-sediment fold (1st option)—Showing bearing		color 100% magenta 3.0 mm draft as shown	
9.104	Horizontal fold hinge of small, minor penecontemporaneous soft-sediment fold (2nd option)—Showing bearing			
9.105	Inclined fold hinge of small, minor anticline (1st option)—Showing bearing and plunge		color 100% magenta 3.5 mm 20 draft as shown	
9.106	Inclined fold hinge of small, minor anticline (2nd option)—Showing bearing and plunge			
9.107	Horizontal fold hinge of small, minor anticline (1st option)—Showing bearing. Ball on topographically higher side of fold		dot diameter .5 mm 3.5 mm draft as shown all lineweights .2 mm color 100% magenta .4 mm	
9.108	Horizontal fold hinge of small, minor anticline (2nd option)—Showing bearing. Ball on topographically higher side of fold			
9.109	Inclined fold hinge of small, minor antiform (1st option)—Showing bearing and plunge		color 100% magenta 3.3 mm 20 draft as shown	
9.110	Inclined fold hinge of small, minor antiform (2nd option)—Showing bearing and plunge			
9.111	Horizontal fold hinge of small, minor antiform (1st option)—Showing bearing. Ball on topographically higher side of fold		dot diameter .5 mm 3.5 mm draft as shown all lineweights .2 mm color 100% magenta .4 mm	
9.112	Horizontal fold hinge of small, minor antiform (2nd option)—Showing bearing. Ball on topographically higher side of fold			
9.113	Inclined fold hinge of small, minor syncline (1st option)—Showing bearing and plunge		color 100% magenta 2.45 mm 20 draft as shown	
9.114	Inclined fold hinge of small, minor syncline (2nd option)—Showing bearing and plunge			
9.115	Horizontal fold hinge of small, minor syncline (1st option)—Showing bearing. Ball on topographically higher side of fold		dot diameter .5 mm 2.45 mm draft as shown all lineweights .2 mm color 100% magenta 1.3 mm	
9.116	Horizontal fold hinge of small, minor syncline (2nd option)—Showing bearing. Ball on topographically higher side of fold			
9.117	Inclined fold hinge of small, minor synform (1st option)—Showing bearing and plunge		color 100% magenta 3.3 mm 20 draft as shown	
9.118	Inclined fold hinge of small, minor synform (2nd option)—Showing bearing and plunge			
9.119	Horizontal fold hinge of small, minor synform (1st option)—Showing bearing. Ball on topographically higher side of fold		dot diameter .5 mm 3.3 mm draft as shown all lineweights .2 mm color 100% magenta .8 mm	
9.120	Horizontal fold hinge of small, minor synform (2nd option)—Showing bearing. Ball on topographically higher side of fold			

*For more information, see general guidelines on pages A-i to A-v.

9—LINEATION (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
9.121	Inclined symmetric minor fold hinge (1st option)— Showing bearing and plunge		color 100% magenta HI-6 (100% black) 6.0 mm 25° draft as shown 2.75 mm 1.25 mm all lineweights .2 mm	Open-armed ("2nd option") symbols may be used to show a second generation or another instance of a particular lineation. Lineation symbols may be used separately or combined with other symbols. For lineation symbols representing a single observation at one locality, the point of observation is at one of the following two places: for inclined lineations, at the "tail" end (opposite the arrow-head); for horizontal lineations, at the midpoint of the bearing line. For a single lineation symbol combined with a single planar-feature (for example, bedding or foliation) symbol, join the "tail" end of the lineation arrow to the midpoint of the strike line of the planar-feature symbol; the junction point is at the point of observation. For multiple observations at one locality, join all symbols at their "tail" ends (opposite the arrowheads or other ornamentations); the junction point is at the point of observation. May also be shown in black or other colors.
9.122	Inclined symmetric minor fold hinge (2nd option)— Showing bearing and plunge			
9.123	Horizontal symmetric minor fold hinge (1st option)— Showing bearing		color 100% magenta 6.0 mm 25° 1.25 mm 2.5 mm draft as shown all lineweights .2 mm	
9.124	Horizontal symmetric minor fold hinge (2nd option)— Showing bearing			
9.125	Inclined asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (1st option)— Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown all lineweights .2 mm	
9.126	Inclined asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (2nd option)— Showing bearing and plunge			
9.127	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (1st option)— Showing bearing		color 100% magenta 3.0 mm draft as shown all lineweights .2 mm	
9.128	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) minor fold hinge (2nd option)— Showing bearing			
9.129	Inclined asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (1st option)— Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown all lineweights .2 mm	
9.130	Inclined asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)— Showing bearing and plunge			
9.131	Horizontal asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (1st option)— Showing bearing		color 100% magenta 3.0 mm draft as shown all lineweights .2 mm	
9.132	Horizontal asymmetric (Z-shaped, clockwise sense of shear) minor fold hinge (2nd option)— Showing bearing			
9.133	Inclined crenulation lineation (1st option)— Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown all lineweights .2 mm	
9.134	Inclined crenulation lineation (2nd option)— Showing bearing and plunge			
9.135	Horizontal crenulation lineation (1st option)— Showing bearing		color 100% magenta 3.0 mm draft as shown all lineweights .2 mm	
9.136	Horizontal crenulation lineation (2nd option)— Showing bearing			
9.137	Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)— Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown all lineweights .2 mm	
9.138	Inclined asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (2nd option)— Showing bearing and plunge			
9.139	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (1st option)— Showing bearing		color 100% magenta 3.0 mm draft as shown all lineweights .2 mm	
9.140	Horizontal asymmetric (S-shaped, counterclockwise sense of shear) kink-band crenulation lineation (2nd option)— Showing bearing			
9.141	Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option)— Showing bearing and plunge		color 100% magenta 3.0 mm 20 draft as shown all lineweights .2 mm	
9.142	Inclined asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option)— Showing bearing and plunge			
9.143	Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (1st option)— Showing bearing		color 100% magenta 3.0 mm draft as shown all lineweights .2 mm	
9.144	Horizontal asymmetric (Z-shaped, clockwise sense of shear) kink-band crenulation lineation (2nd option)— Showing bearing			

*For more information, see general guidelines on pages A-i to A-v.