

KIC 002718630

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002718630-01	OBS	No	0.779392	131.583719	78.9	3.360	13.8	9.7	1.75	7383	1.80	21561.53
002718630-02	OBS	No	1.298993	131.605199	190.9	3.843	11.4	12.1	1.75	7383	2.79	10911.35
002718630-03	OBS	No	0.974312	132.170047	142.2	10.777	10.1	10.9	1.75	7383	2.11	16011.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002718630-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002718630-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
002718630-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

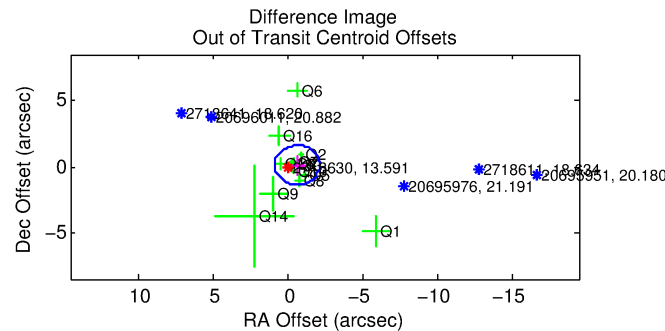
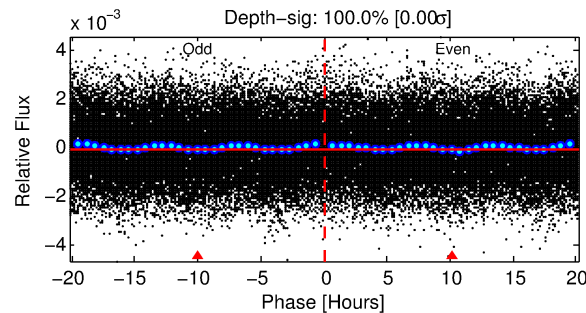
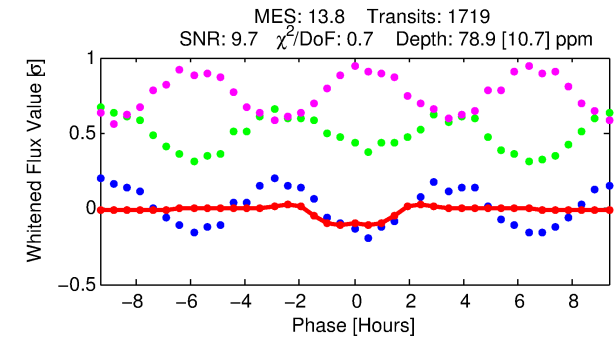
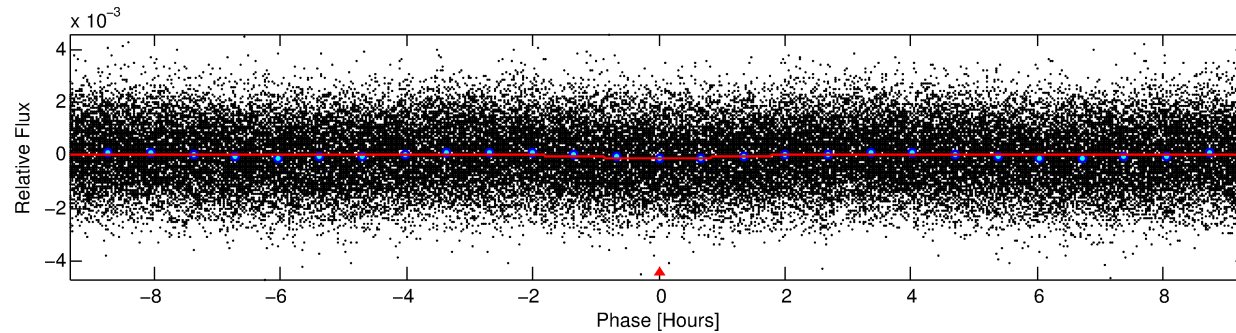
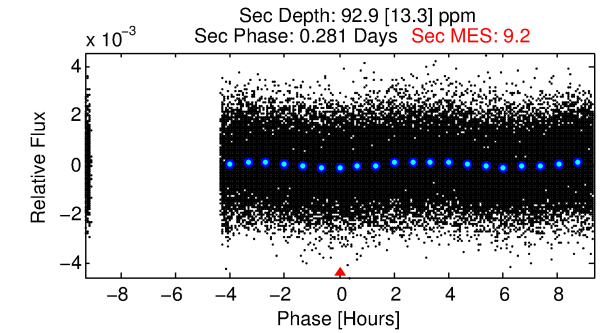
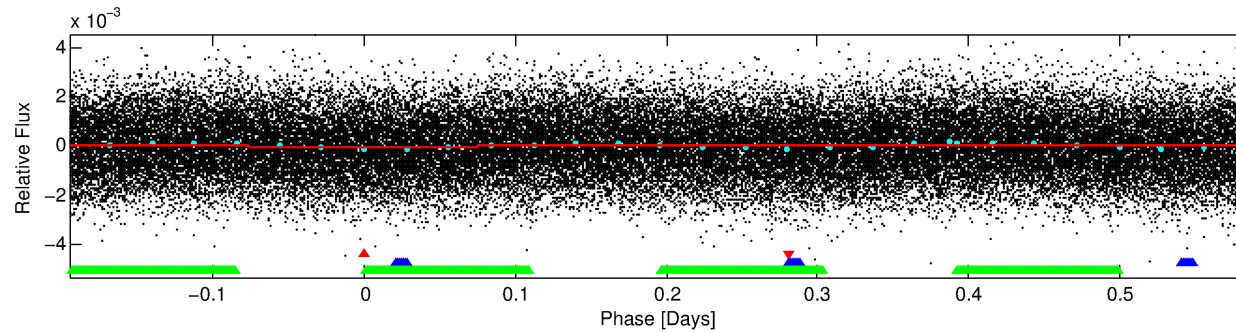
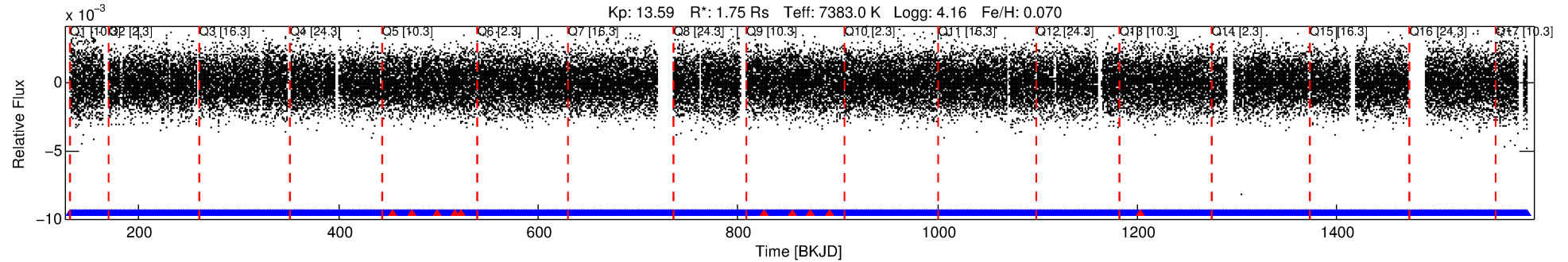
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002718630-01

No Significant Match Found

DV One-Page Summary

KIC: 2718630 Candidate: 1 of 3 Period: 0.779 d



DV Fit Results:

Period = 0.77939 [0.00001] d
Epoch = 131.5837 [0.0040] BKJD
Rp/R* = 0.0094 [0.0062]
a/R* = 1.24 [1.85]
b = 0.90 [0.91]
Seff = 21561.53 [8826.10]
Teff = 3090 [316] K
Rp = 1.80 [1.33] Re
a = 0.0194 [0.0051] AU
Ag = 5.96 [8.23] [0.60σ]
Teffp = 7464 [2506] K [1.73σ]

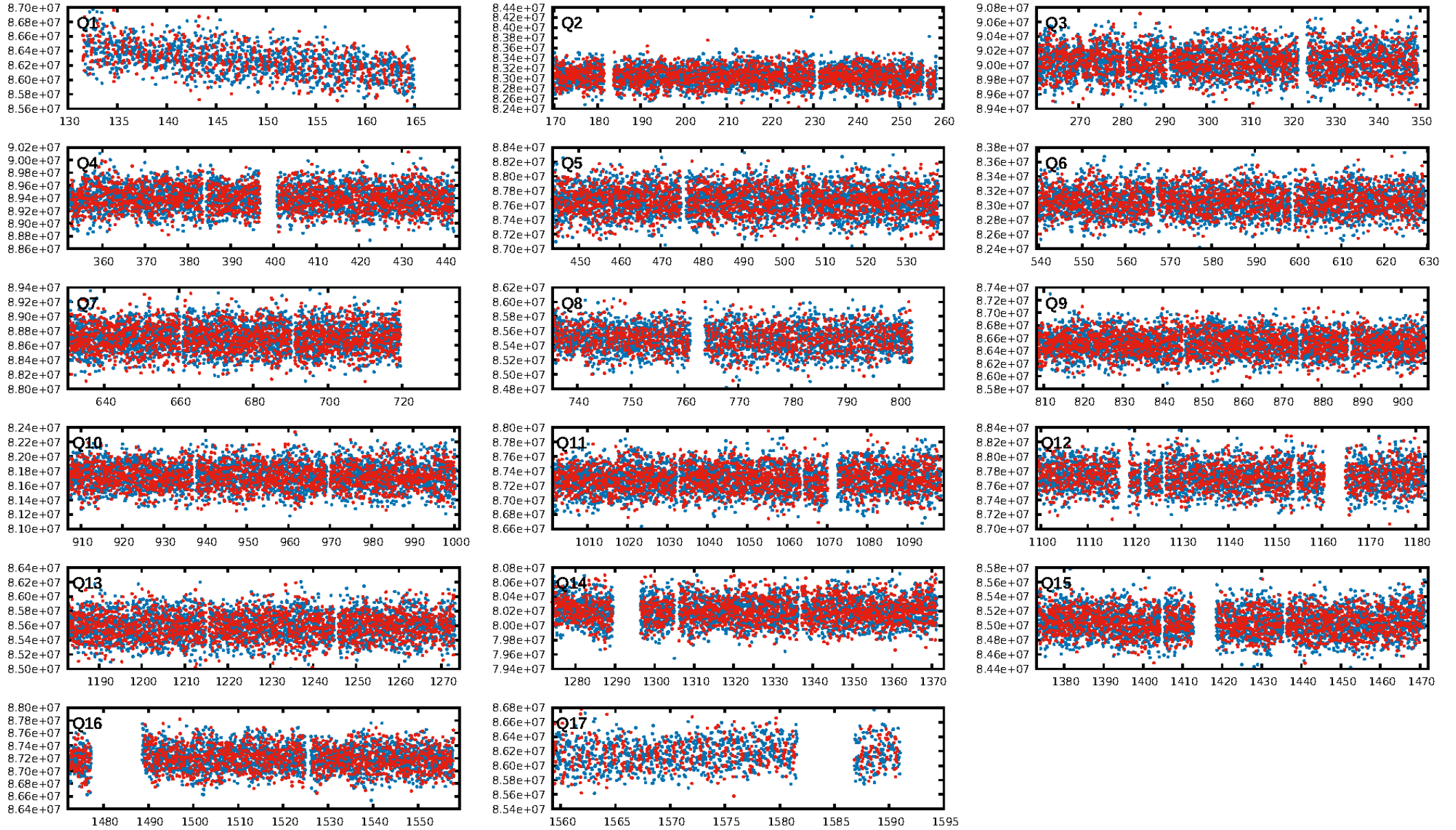
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 32.1% [0.41σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1631/1642]
GhostDiagnostic-chr: 10.25
Centroid-sig: 62.8%
Centroid-so: 0.273 arcsec [0.64σ]
OotOffset-rm: 0.662 arcsec [1.33σ]
OotOffset-st: 4/3/3/3 [13]
KicOffset-rm: 0.747 arcsec [1.58σ]
KicOffset-st: 4/3/3/3 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 0.00 [0/17]

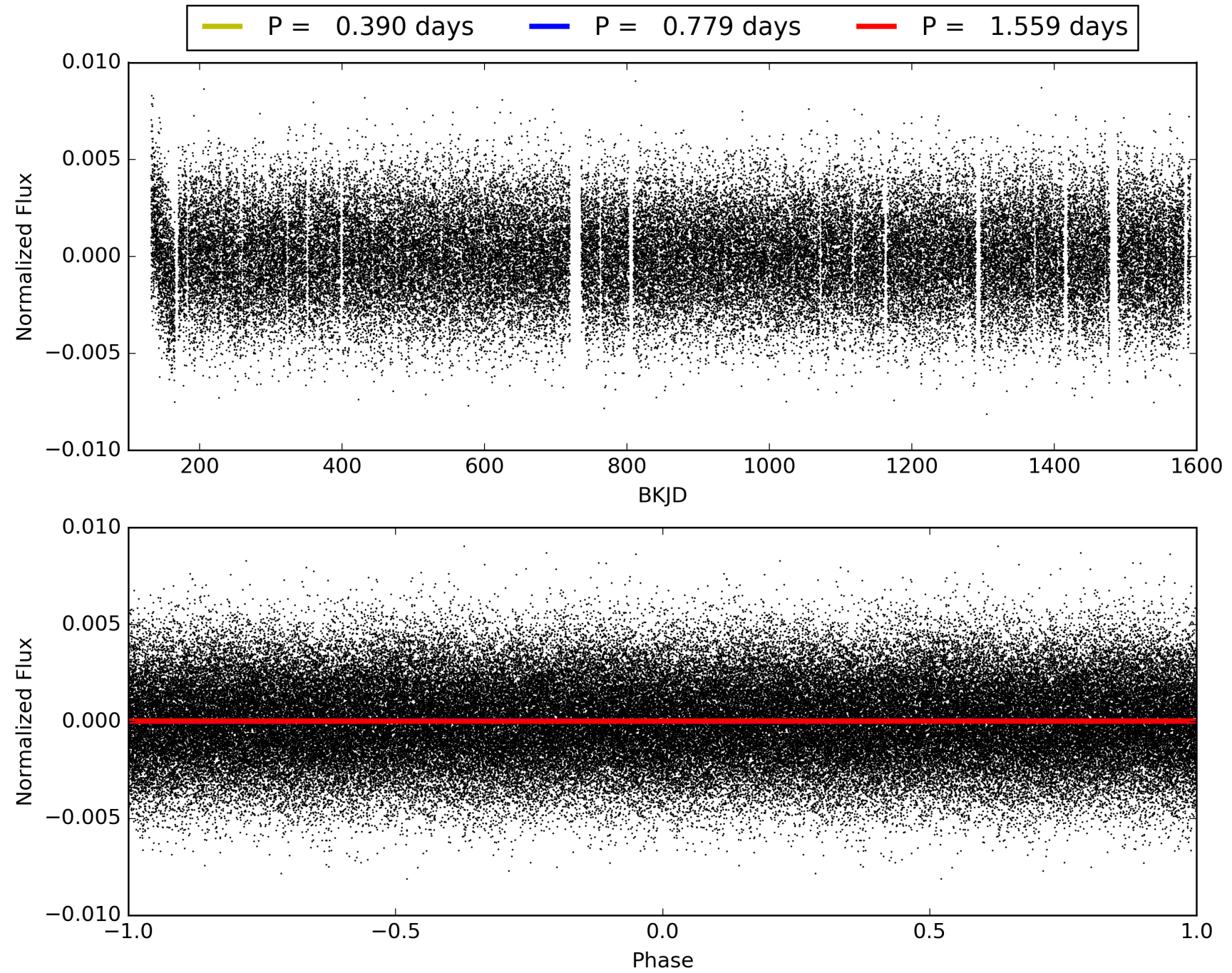
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:39:27 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002718630-01, PDC Light Curves

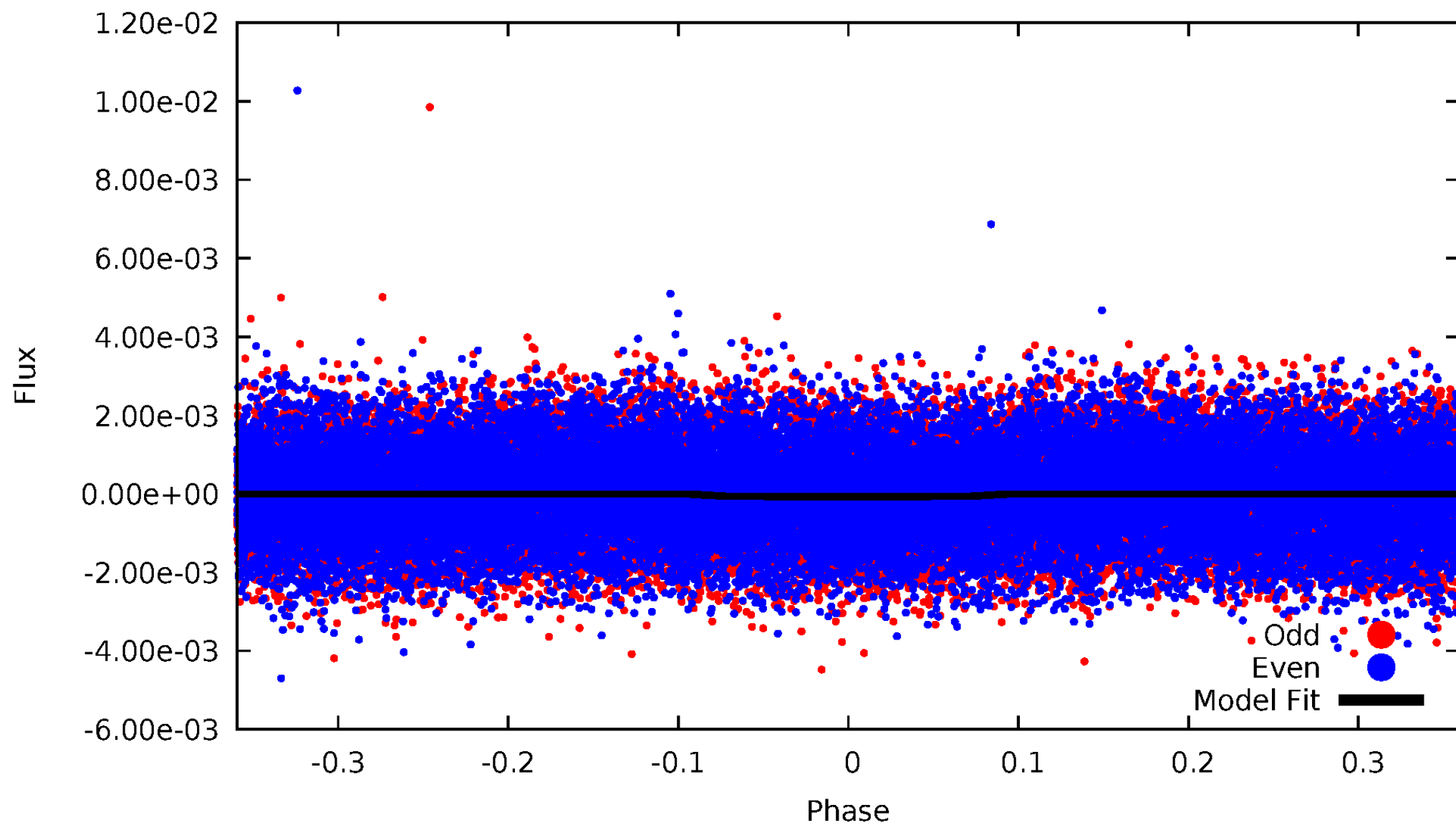


TCE 002718630-01



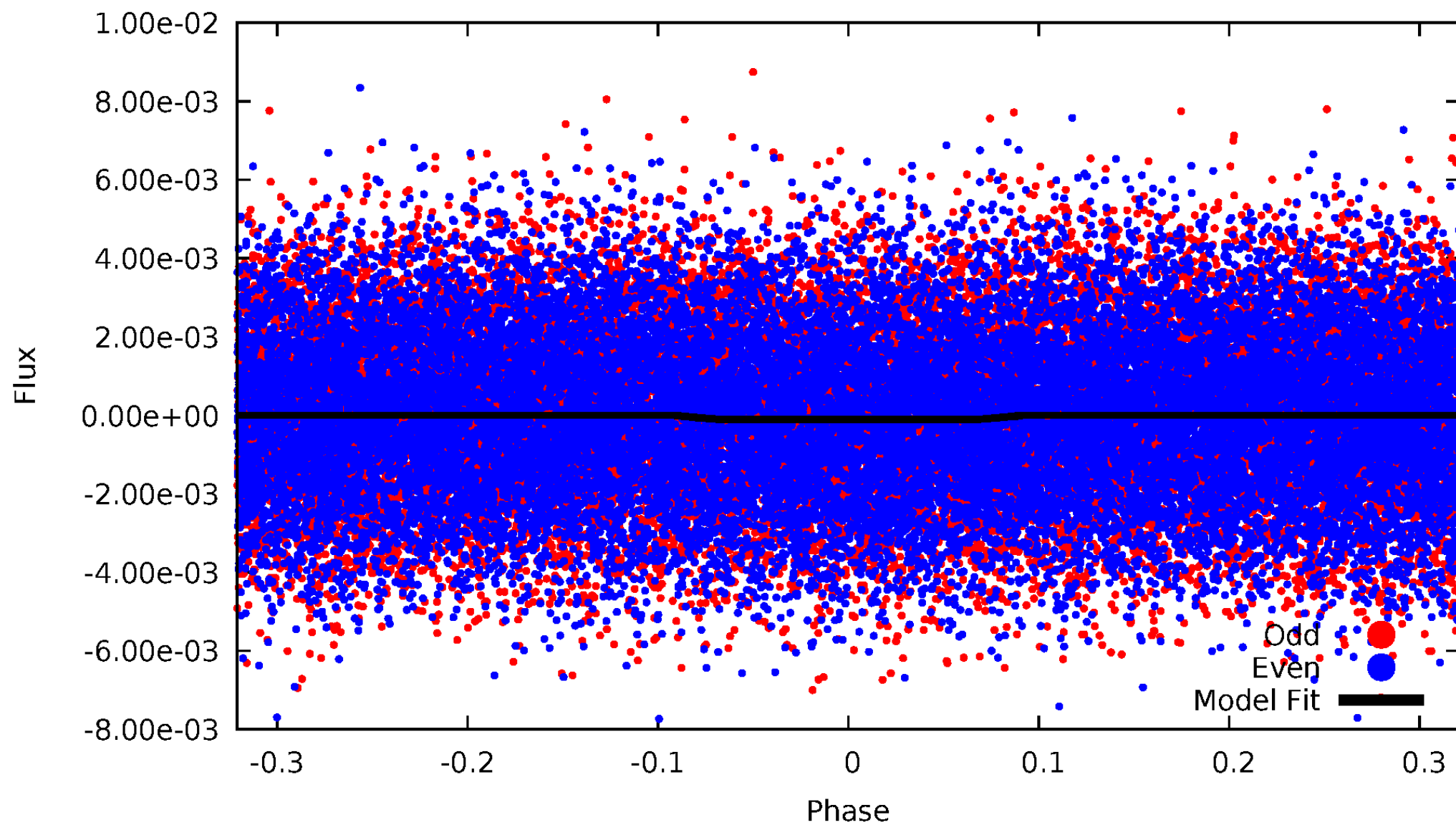
DV Odd/Even

TCE 002718630-01



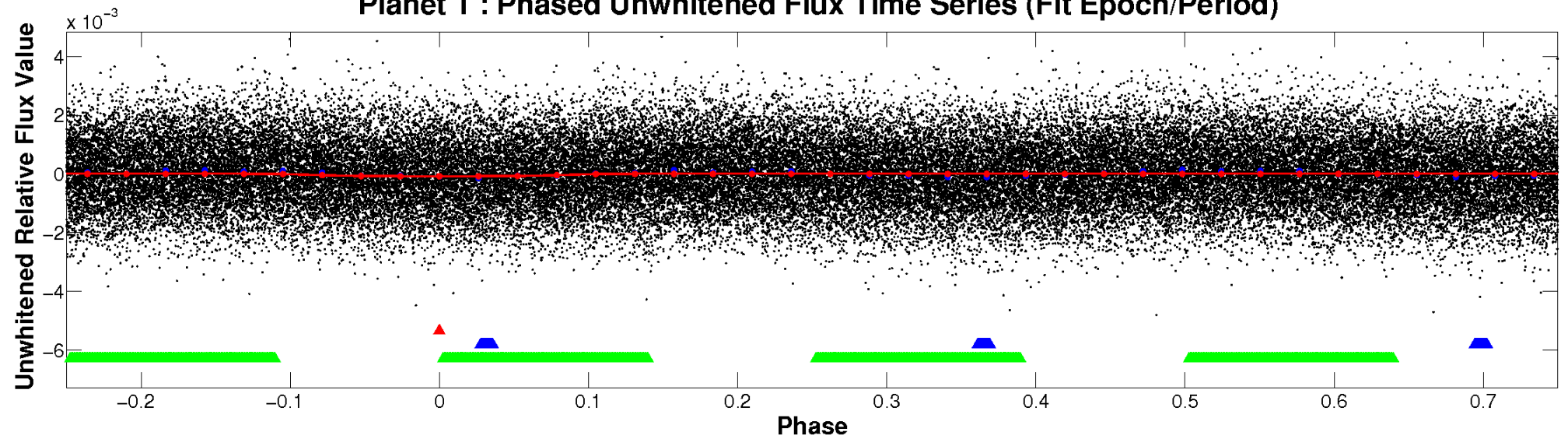
ALT Odd/Even

TCE 002718630-01

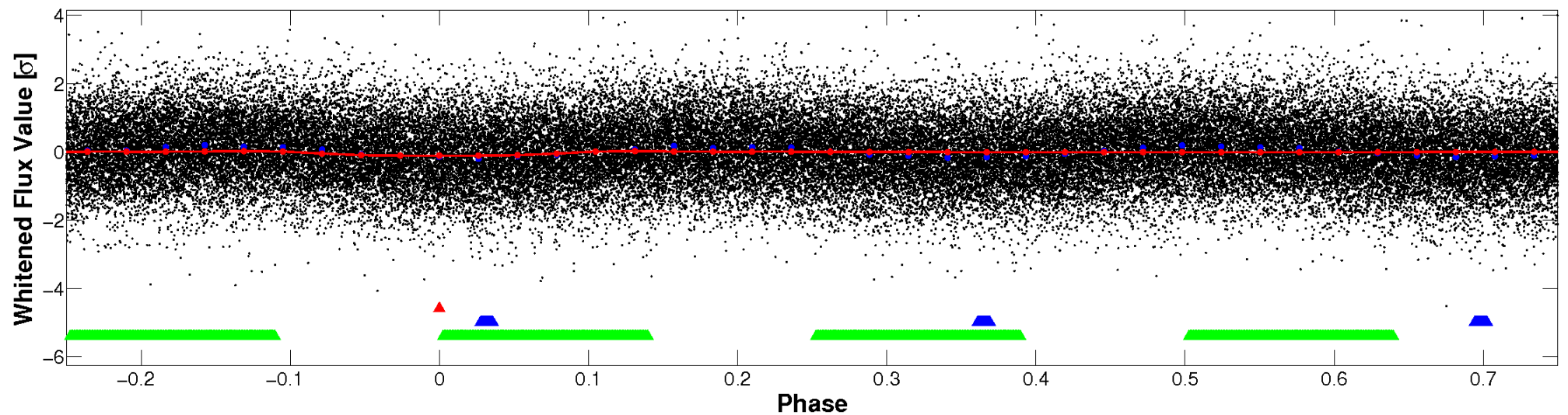


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

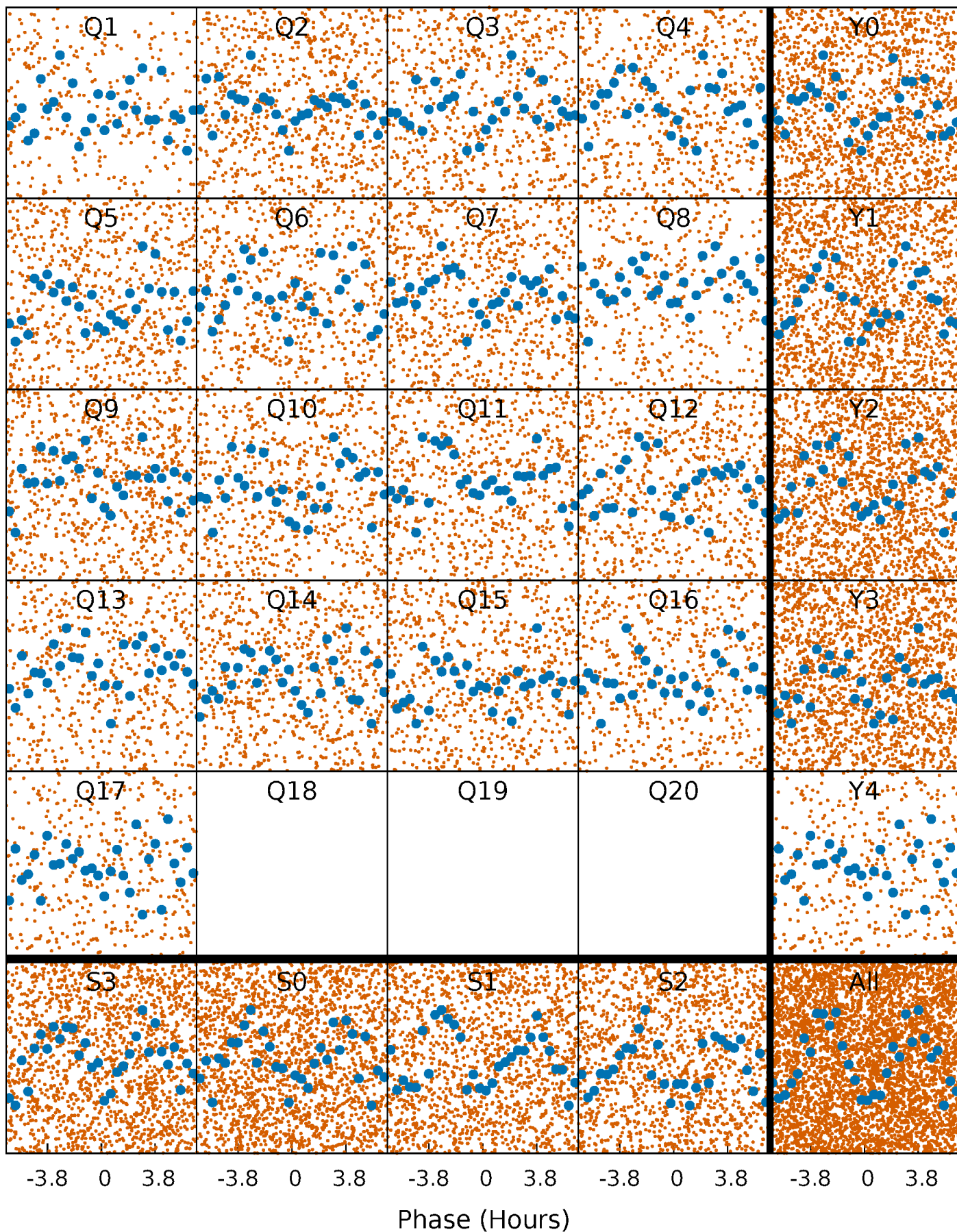


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



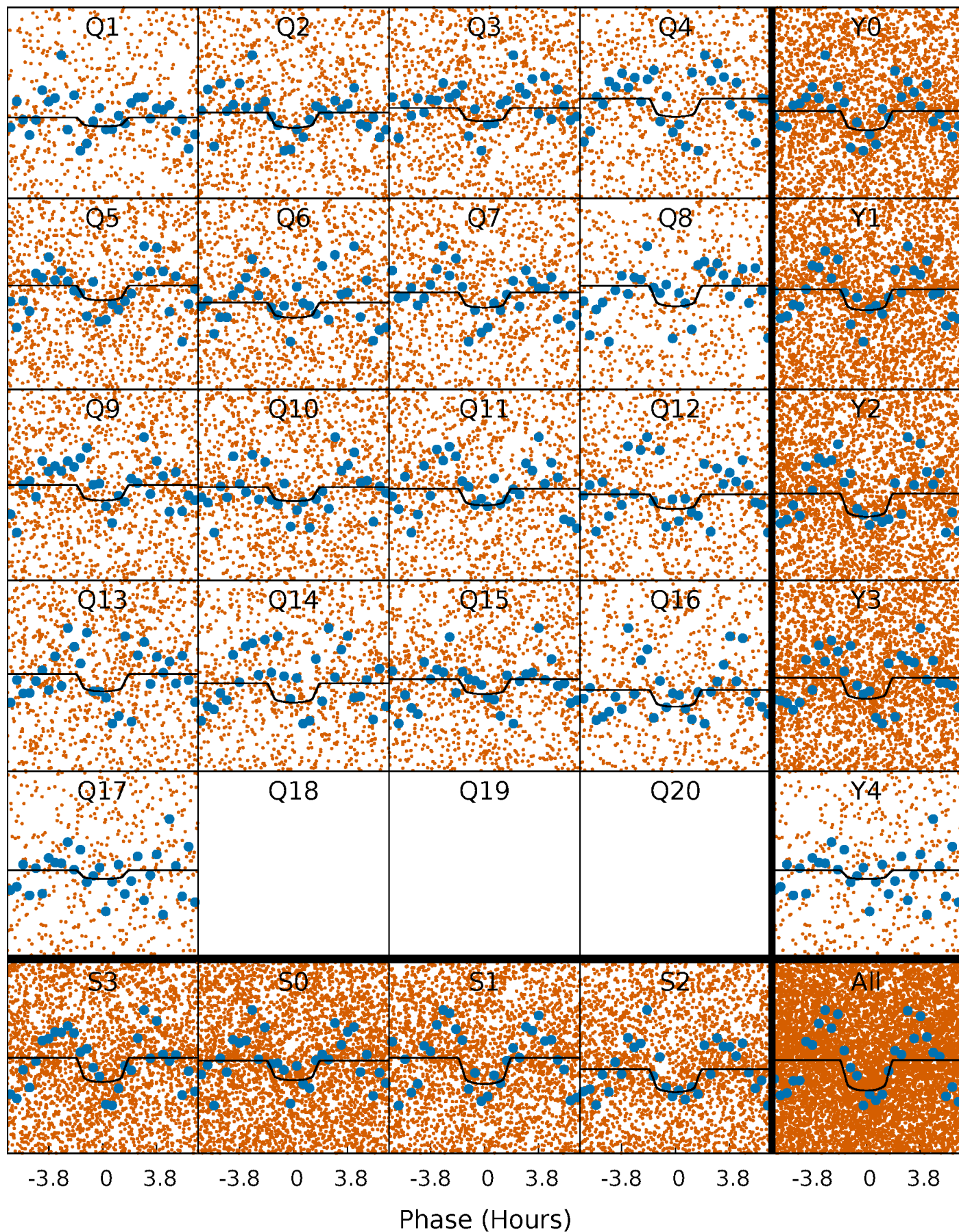
PDC Quarter-Phased Transit Curves

TCE 002718630-01 P= 0.779392 Days $T_0=131.583719$ (BKJD)



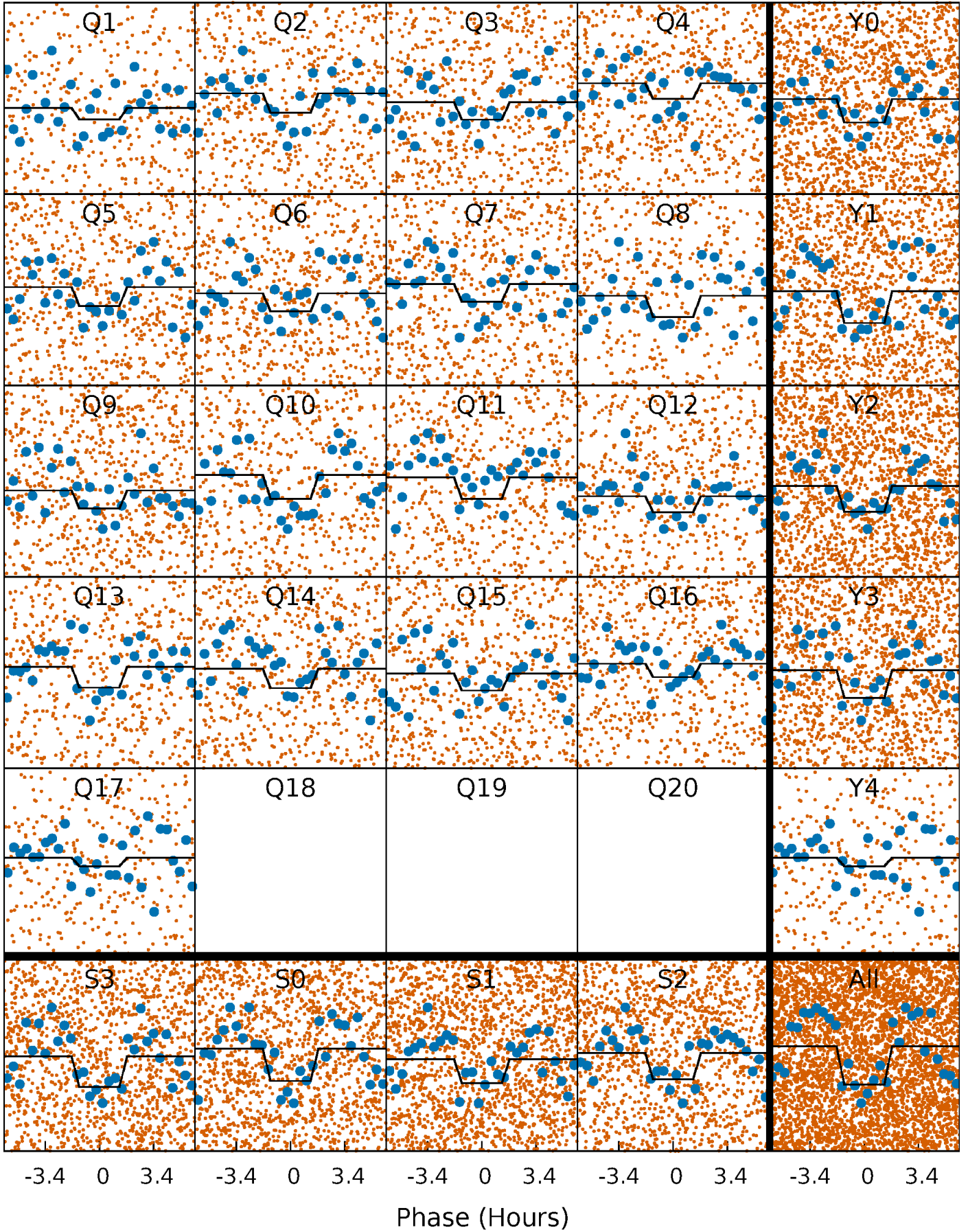
DV Quarter-Phased Transit Curves

TCE 002718630-01 P= 0.779392 Days $T_0=131.583719$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

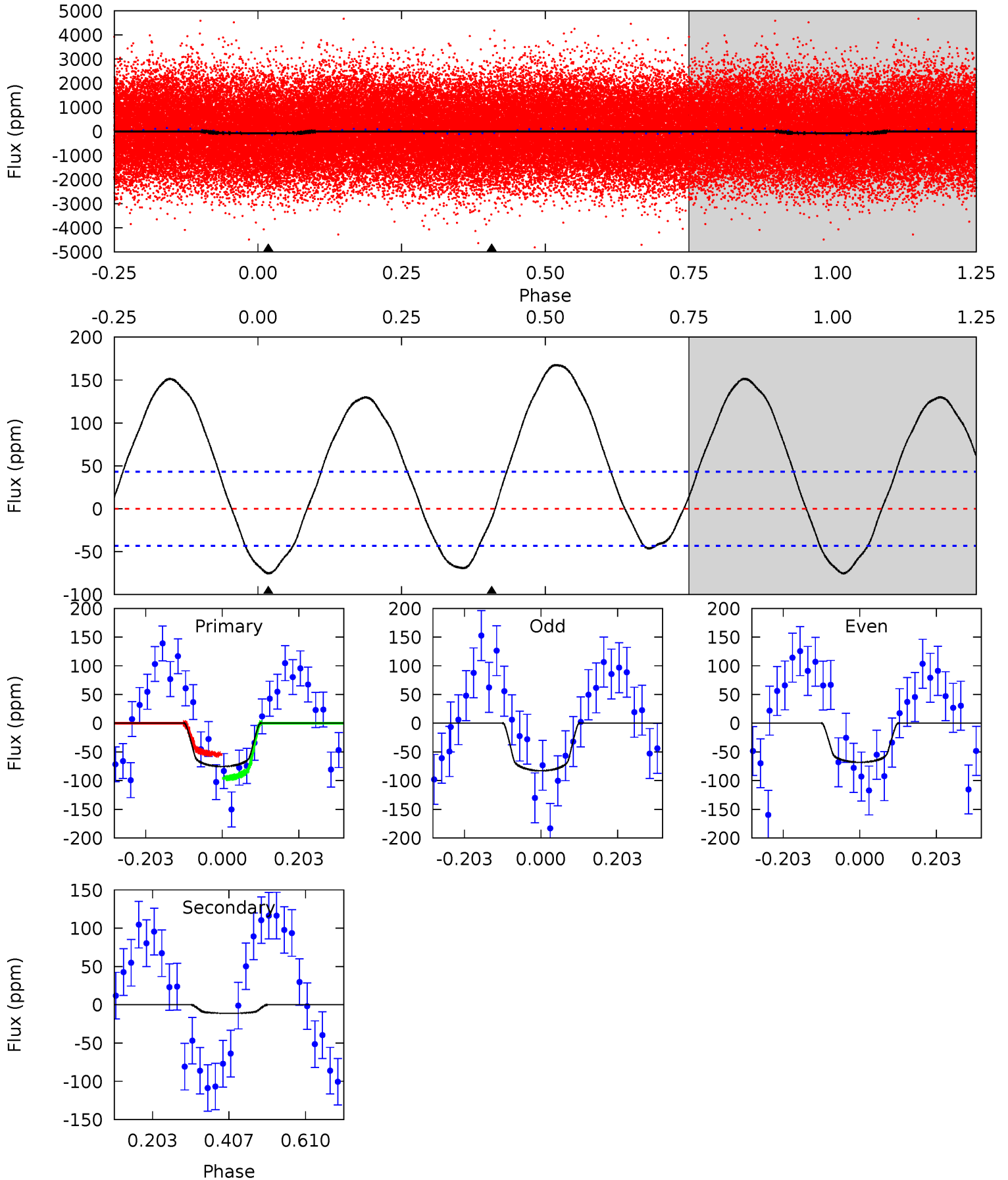
TCE 002718630-01 P= 0.779413 Days $T_0=131.581380$ (BKJD)



DV Model-Shift Uniqueness Test

002718630-01, P = 0.779392 Days, E = 130.804327 Days

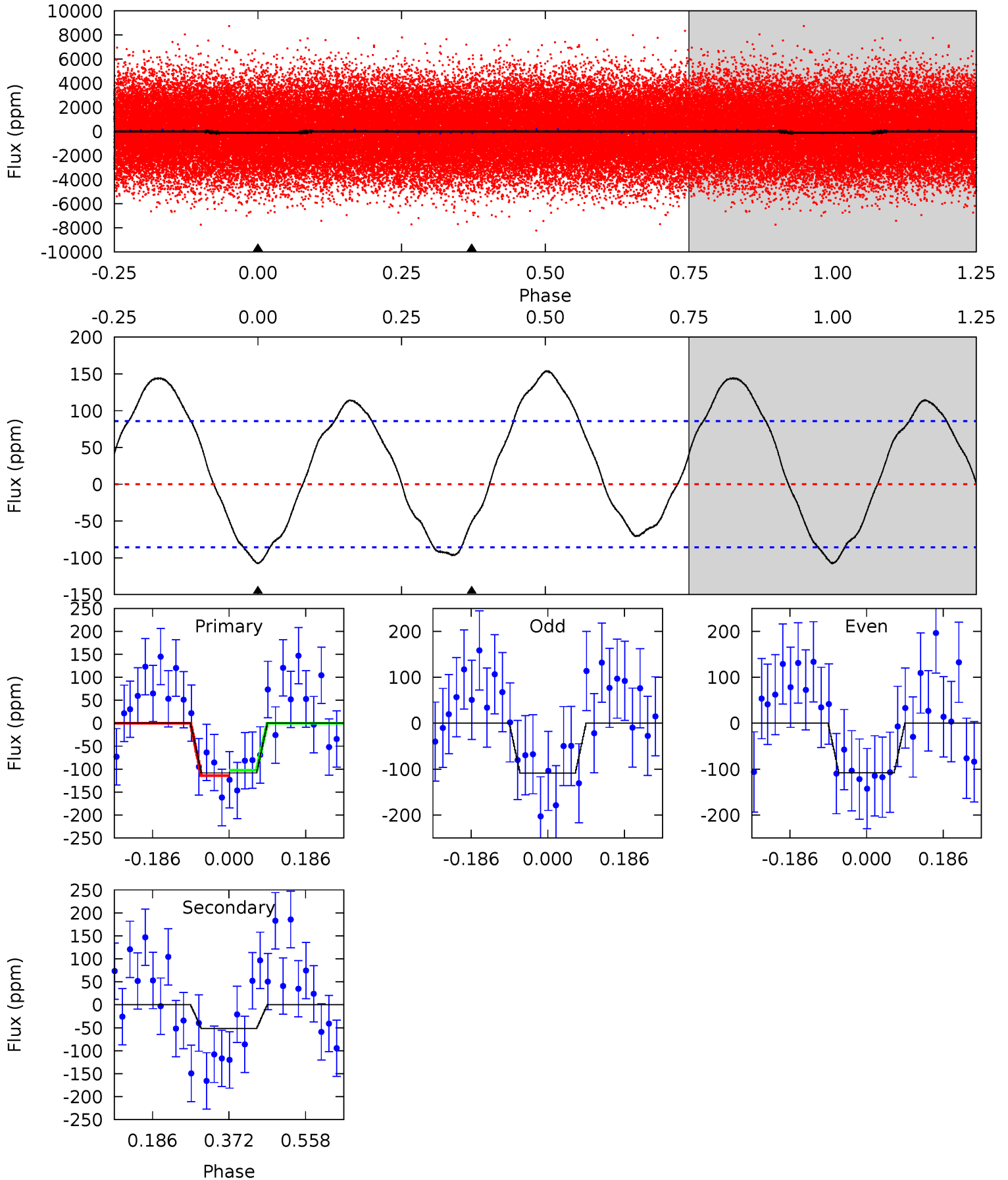
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.69	1.13	0	0	4.41	1.27	5.16	7.69	7.69	1.13	1.13	0.75	0.95	0.69	2.11



Alt Model-Shift Uniqueness Test

002718630-01, P = 0.779413 Days, E = 130.801967 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.59	2.67	0	0	4.43	1.32	3.28	5.59	5.59	2.67	2.67	0.02	0.96	0.59	0.31



Stellar Parameters For KIC 002718630

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7383^{+206}_{-324}	$4.159^{+0.105}_{-0.195}$	$0.070^{+0.200}_{-0.350}$	$1.747^{+0.569}_{-0.306}$	$1.604^{+0.214}_{-0.235}$	$0.424^{+0.205}_{-0.218}$
	+3%/-4%	+3%/-5%	+286%/-500%	+33%/-18%	+13%/-15%	+48%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002718630-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 10	$1.95^{+1.29}_{-1.11}$	4365^{+335}_{-280}	3488^{+2630}_{-7380}	$0.455^{+2.439}_{-0.439}$
Alt.	-52 ± 19	$2.03^{+1.32}_{-1.01}$	4349^{+354}_{-264}	5736^{+3046}_{-1463}	$2.471^{+7.449}_{-1.678}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

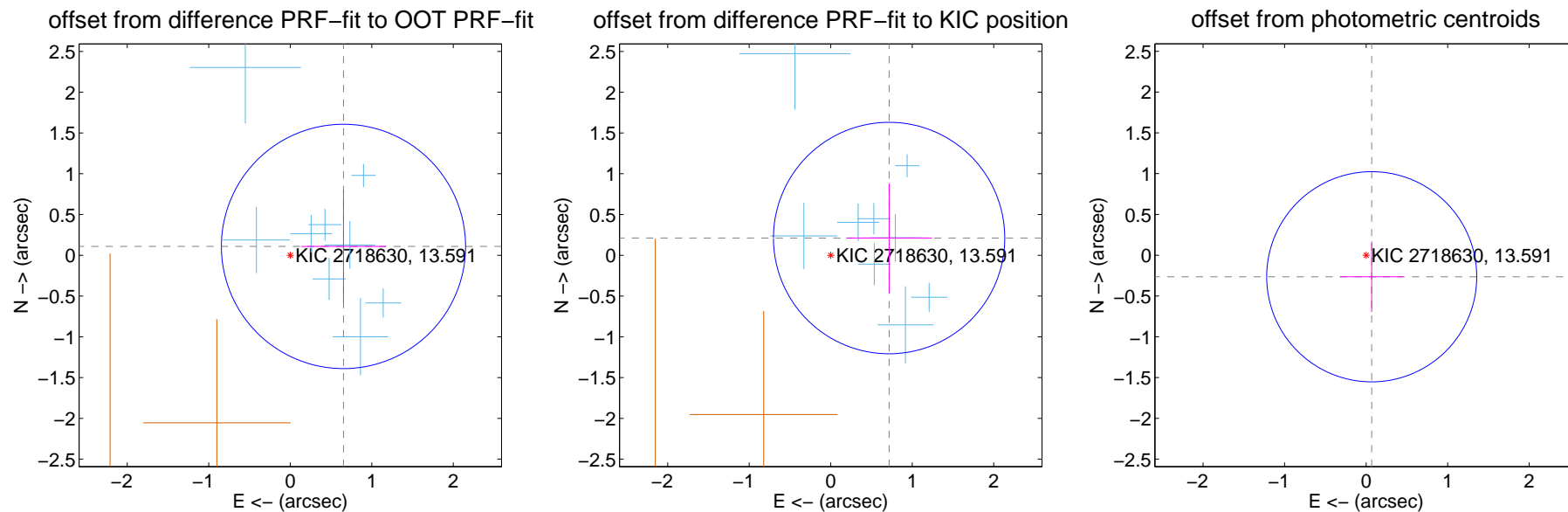
DV Centroid Data

Supplemental centroid analysis for 002718630-01. Kepler magnitude: 13.59. Transit SNR 9.66

There are 9 quarters with good PRF difference image offsets

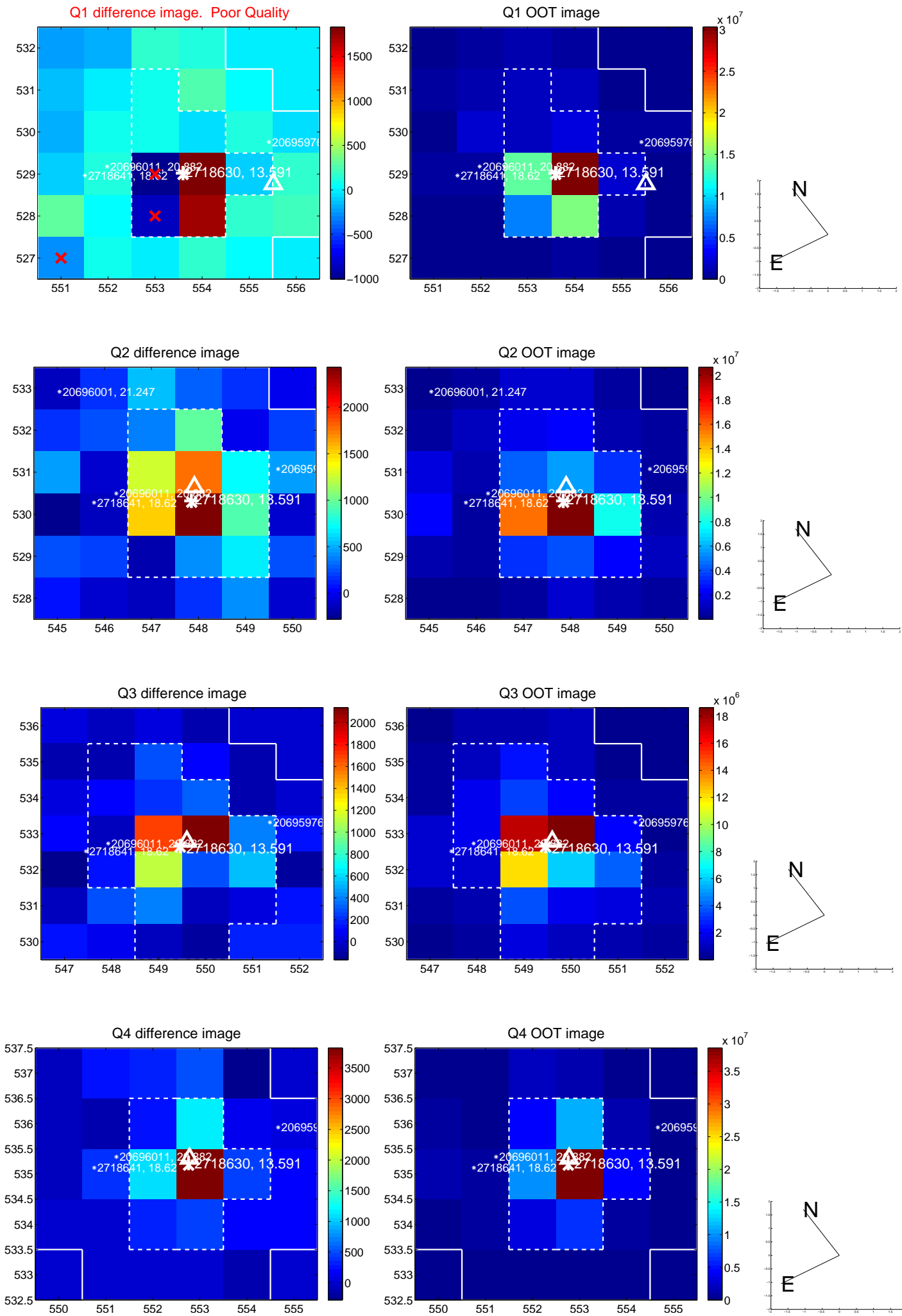
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.662 ± 0.499	1.33	-0.653 ± 0.522	0.109 ± 0.694
PRF-fit source offset from KIC position	0.747 ± 0.473	1.58	-0.716 ± 0.527	0.211 ± 0.673
photometric centroid source offset	0.27 ± 0.43	0.64	-0.07 ± 0.39	-0.26 ± 0.43

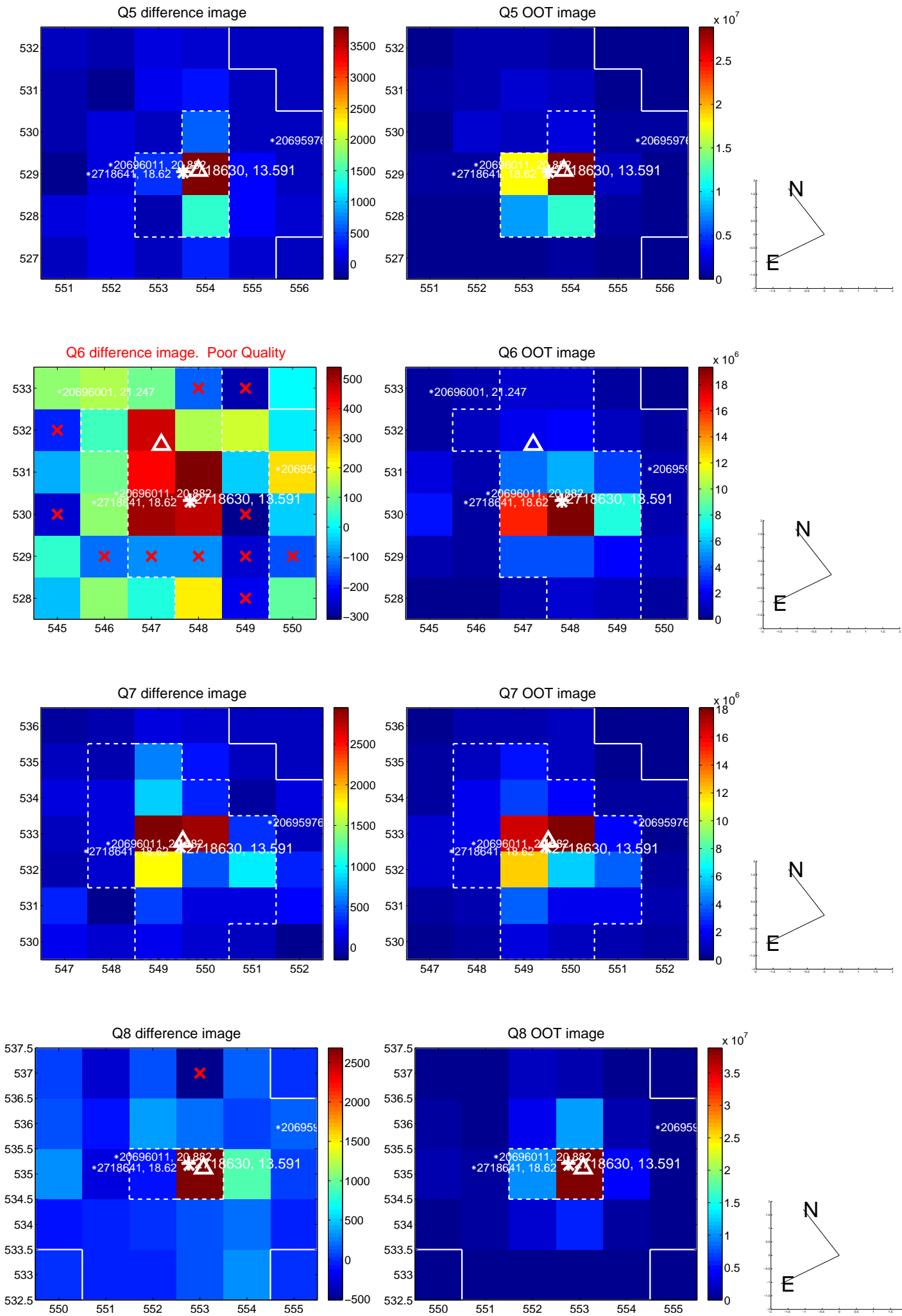


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

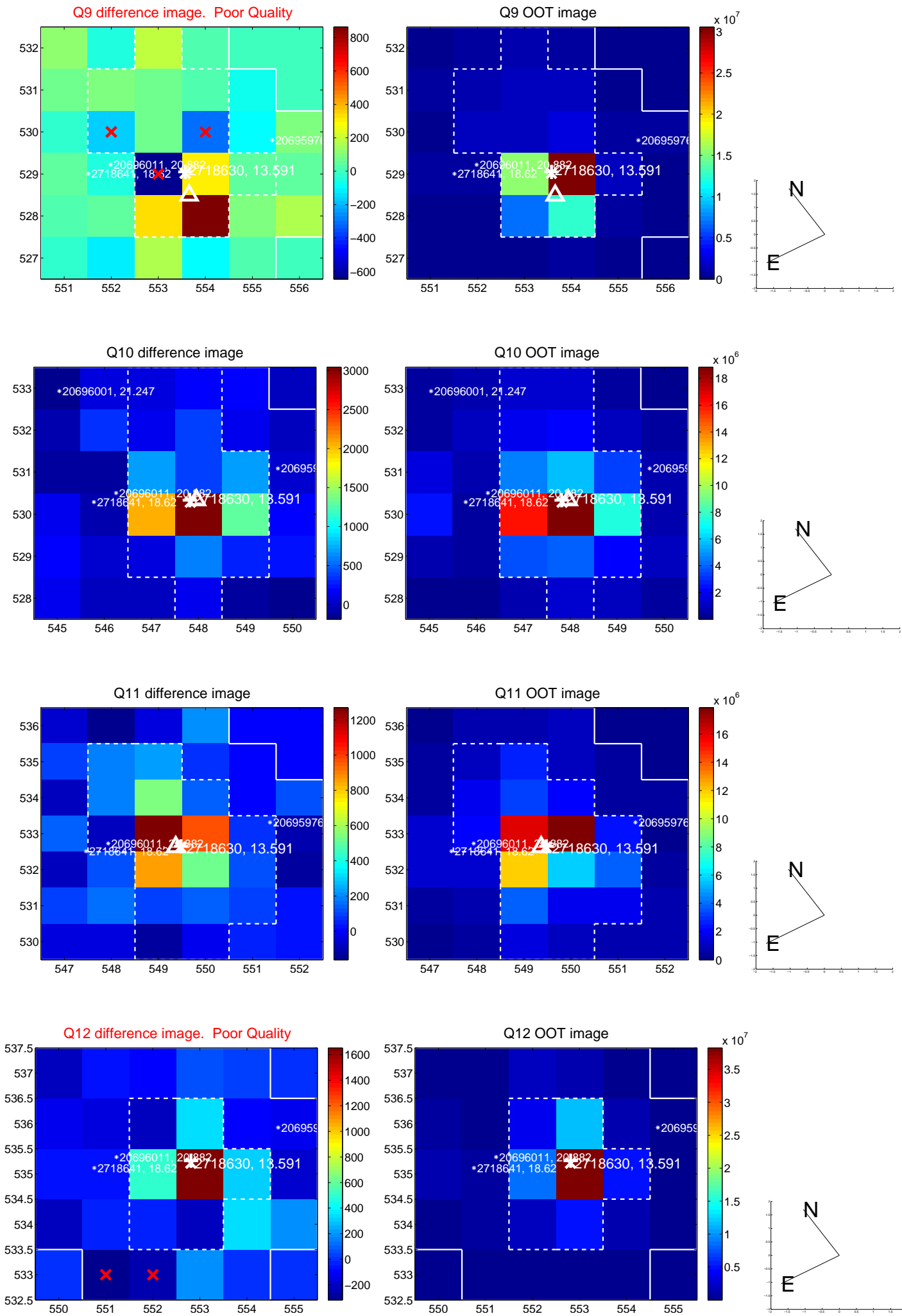
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



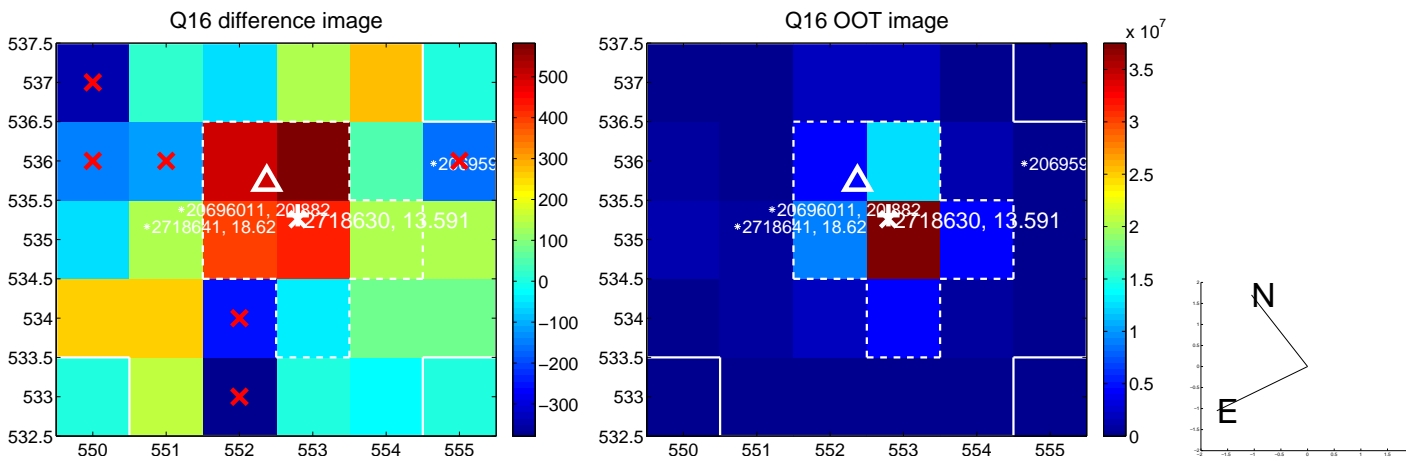
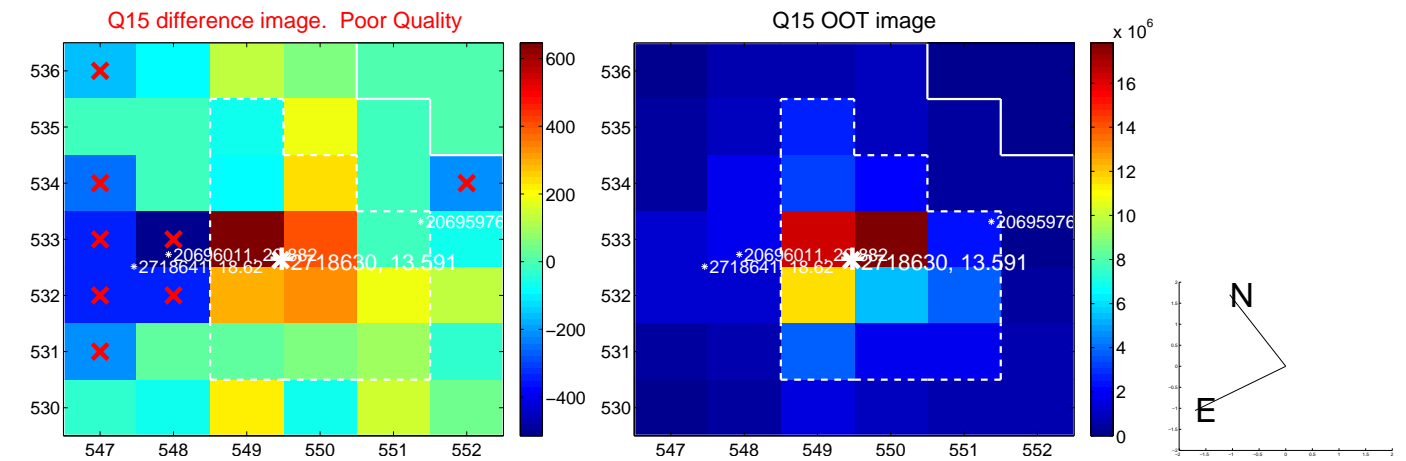
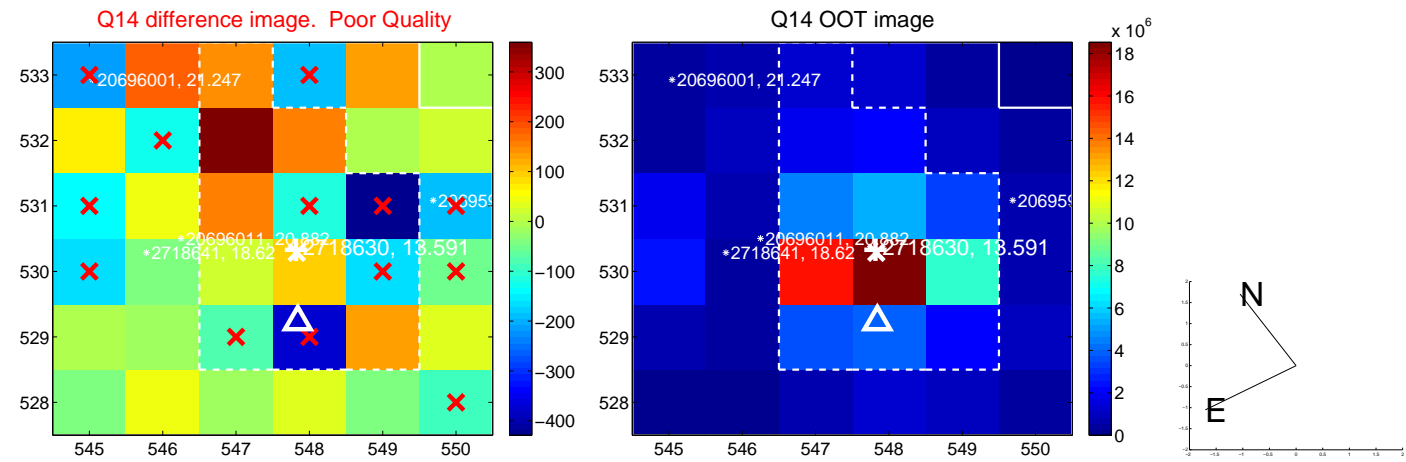
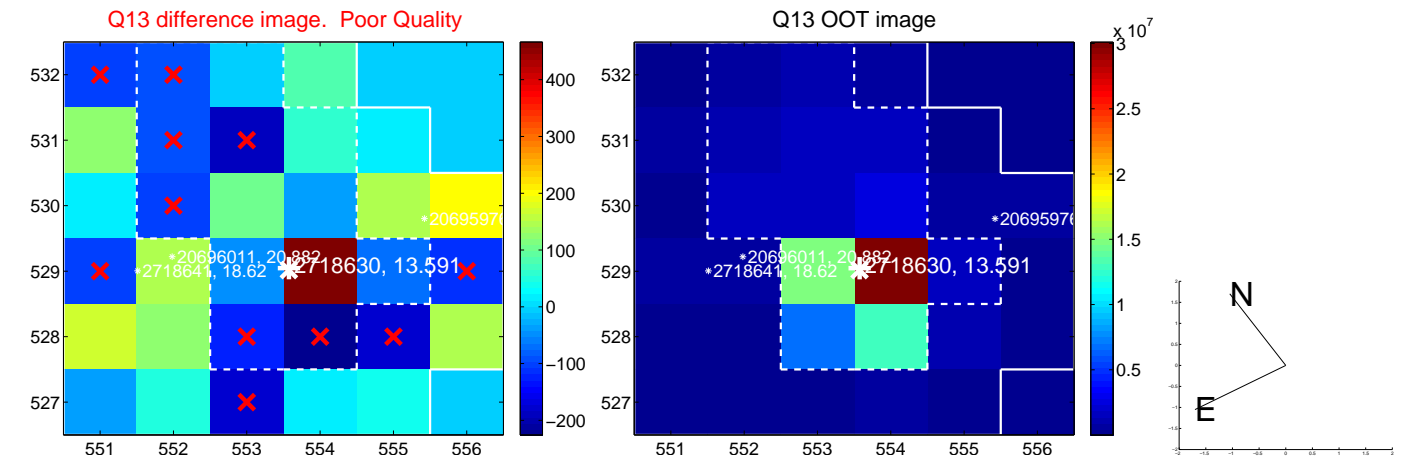
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



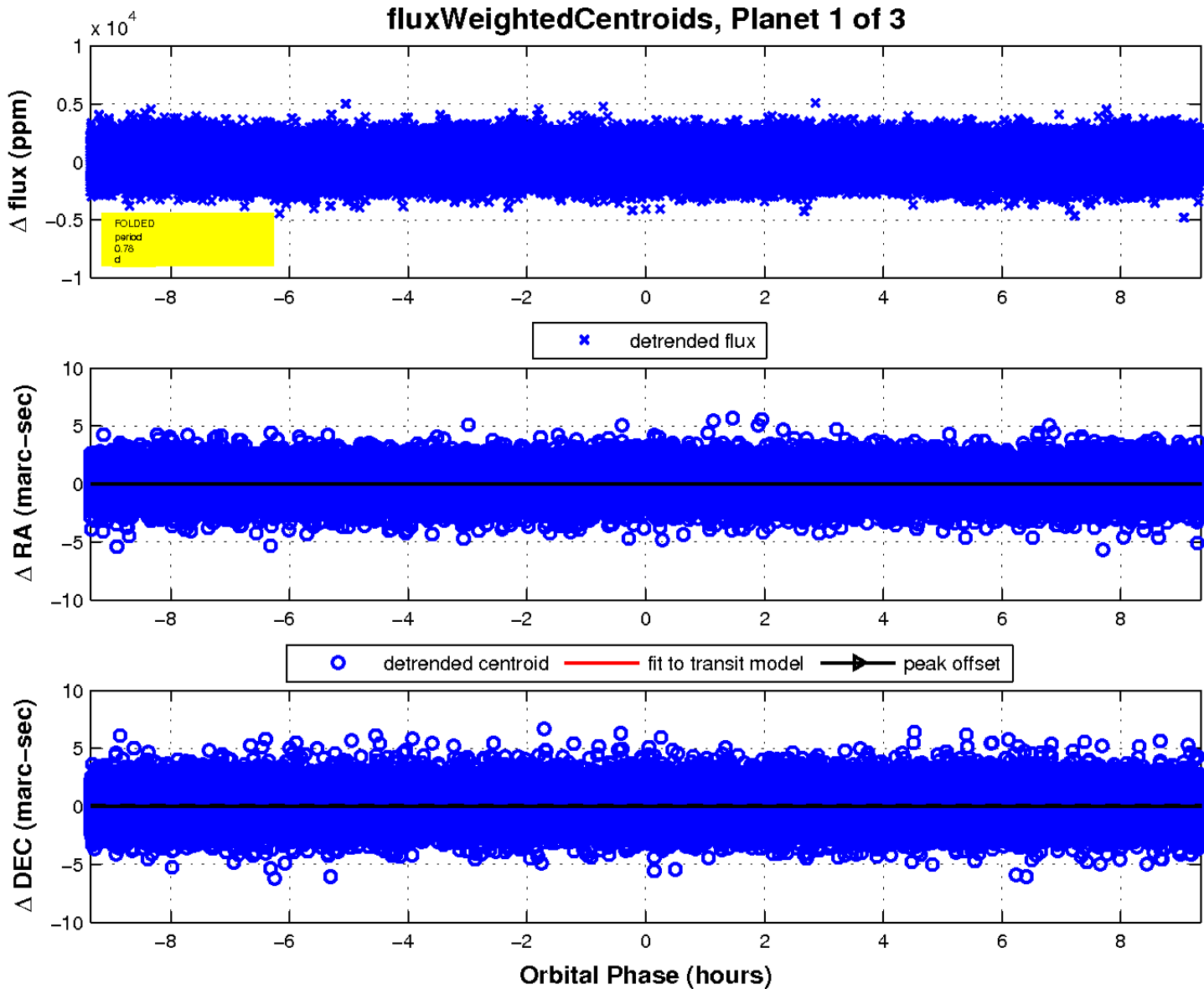
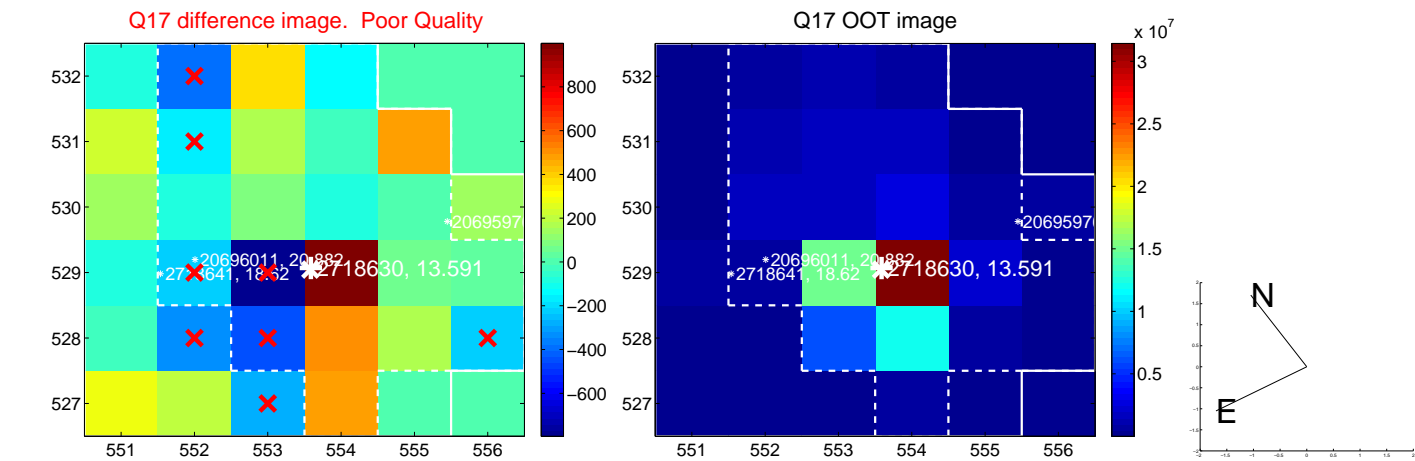
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

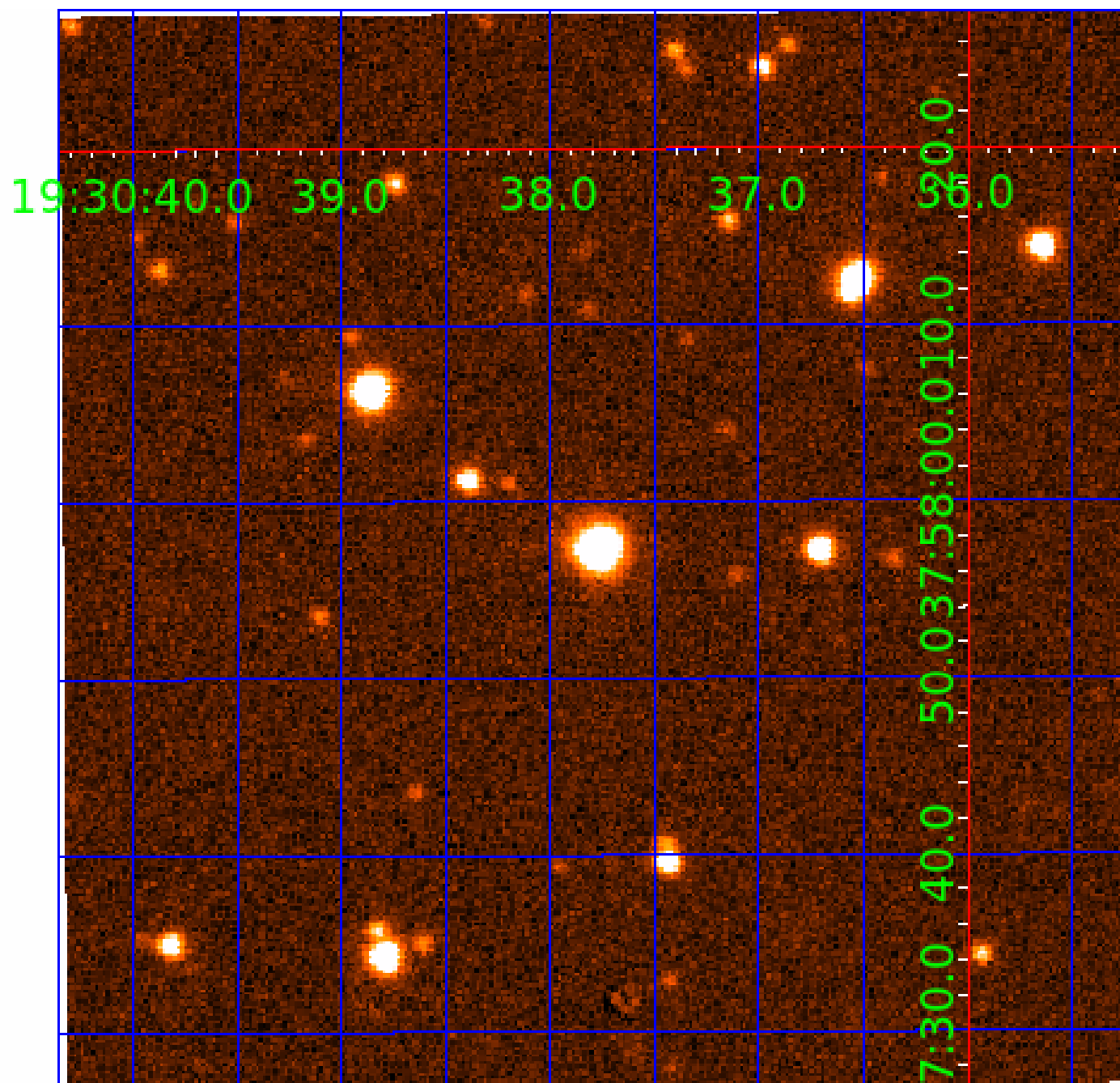


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002718630

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002718630-01	OBS	No	0.779392	131.583719	78.9	3.360	13.8	9.7	1.75	7383	1.80	21561.53
002718630-02	OBS	No	1.298993	131.605199	190.9	3.843	11.4	12.1	1.75	7383	2.79	10911.35
002718630-03	OBS	No	0.974312	132.170047	142.2	10.777	10.1	10.9	1.75	7383	2.11	16011.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002718630-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002718630-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
002718630-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

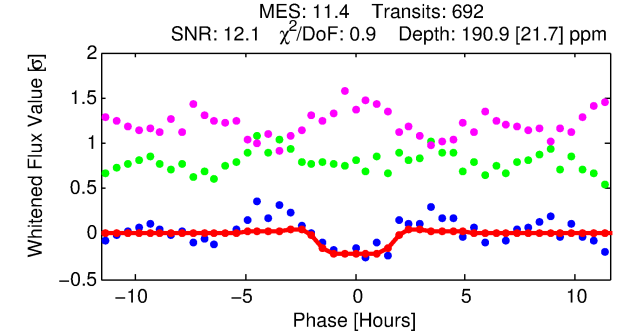
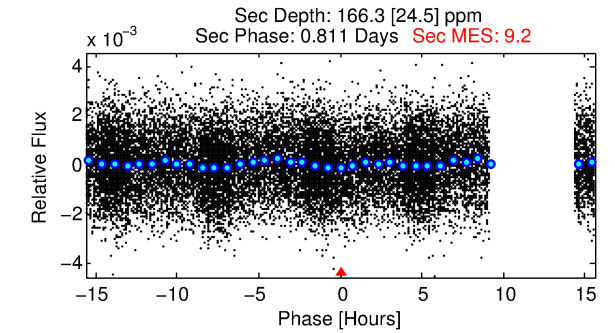
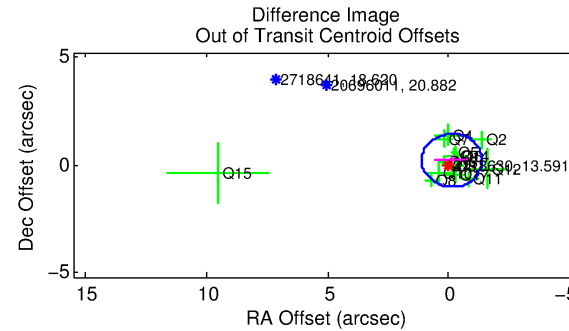
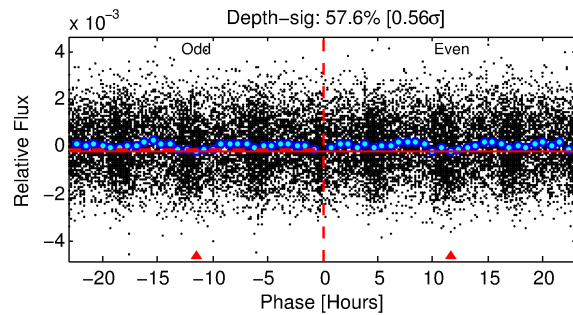
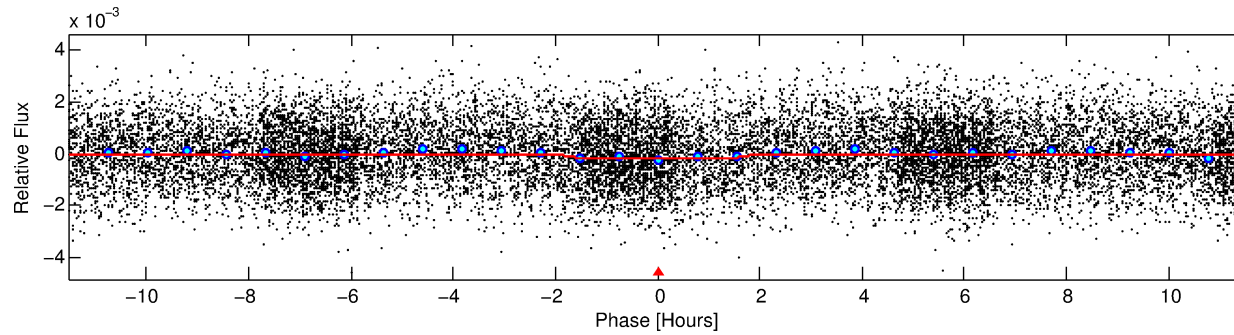
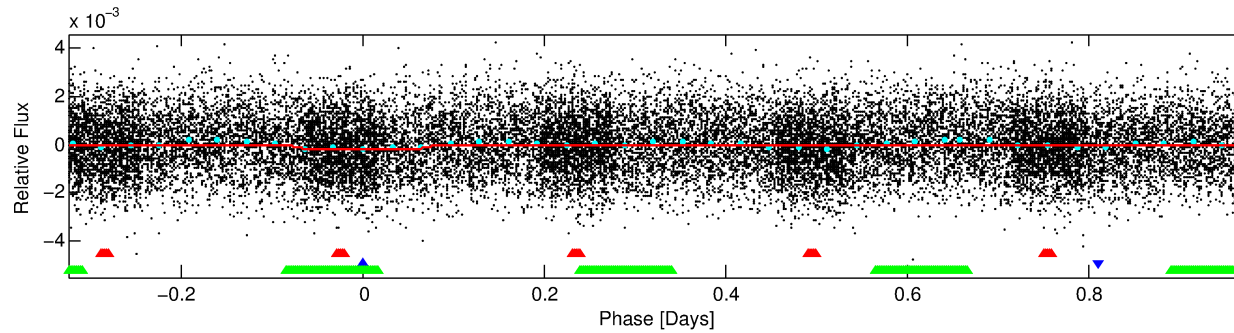
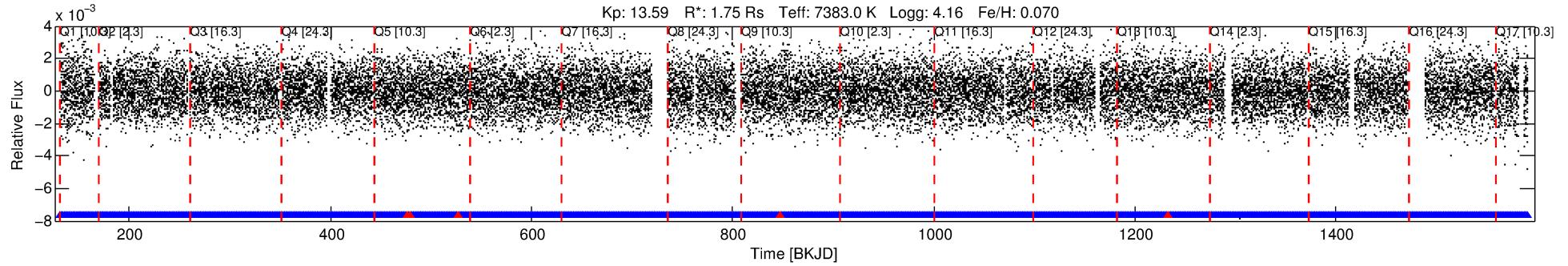
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002718630-02

No Significant Match Found

DV One-Page Summary

KIC: 2718630 Candidate: 2 of 3 Period: 1.299 d



DV Fit Results:

Period = 1.29899 [0.00001] d
Epoch = 131.6052 [0.0050] BKJD
Rp/R* = 0.0147 [0.0059]
a/R* = 1.53 [2.28]
b = 0.90 [0.55]
Seff = 10911.35 [4466.50]
Teq = 2606 [267] K
Rp = 2.79 [1.45] Re
a = 0.0273 [0.0072] AU
Ag = 8.72 [7.88] [0.98 σ]
Teffp = 6924 [1460] K [2.91 σ]

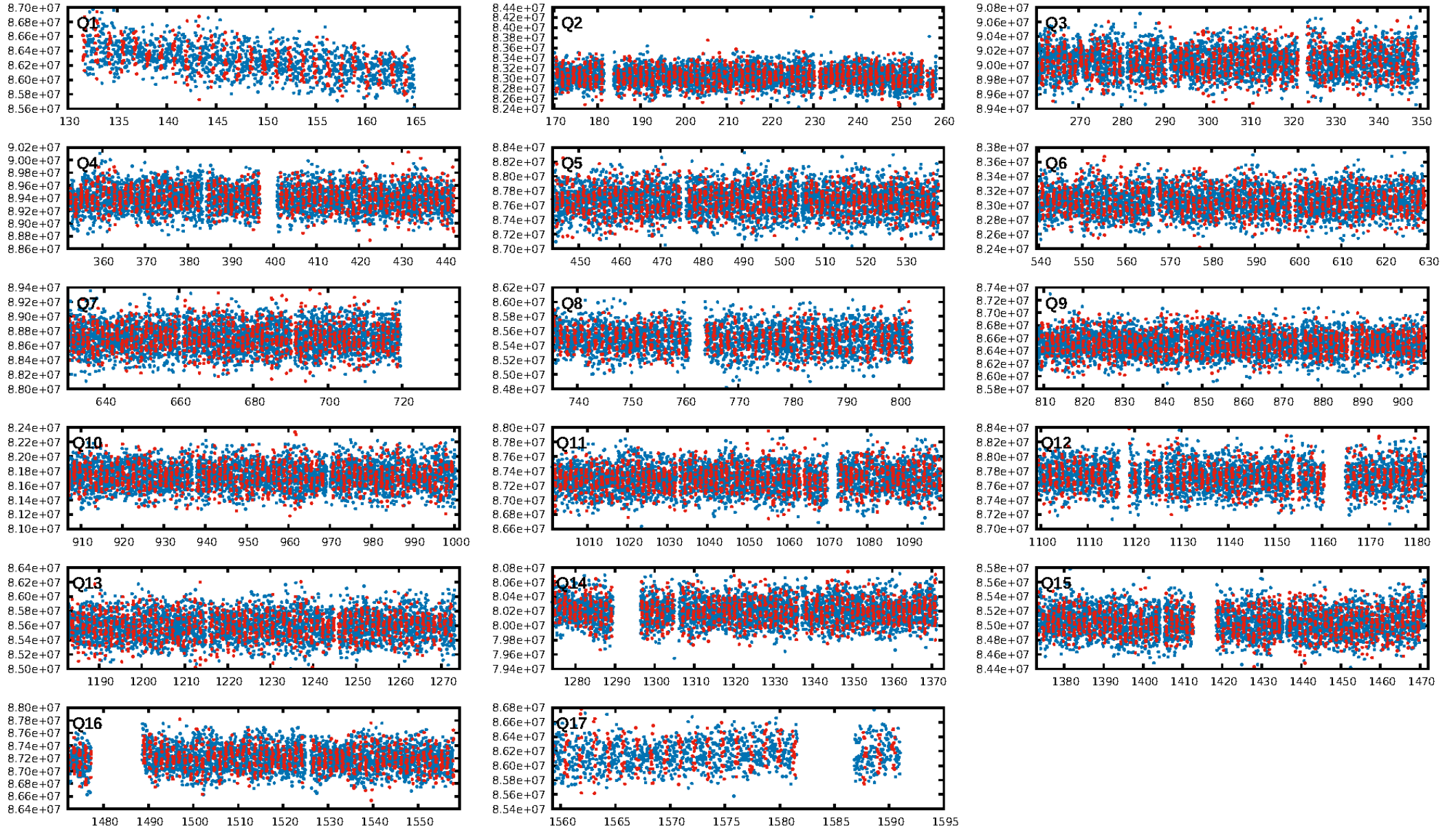
DV Diagnostic Results:

ShortPeriod-sig: 50.4% [0.68 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [657/662]
GhostDiagnostic-chr: 0.935
Centroid-sig: 8.4%
Centroid-so: 0.185 arcsec [0.87 σ]
OotOffset-rm: 0.235 arcsec [0.57 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-rm: 0.357 arcsec [0.86 σ]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 0.00 [0/17]

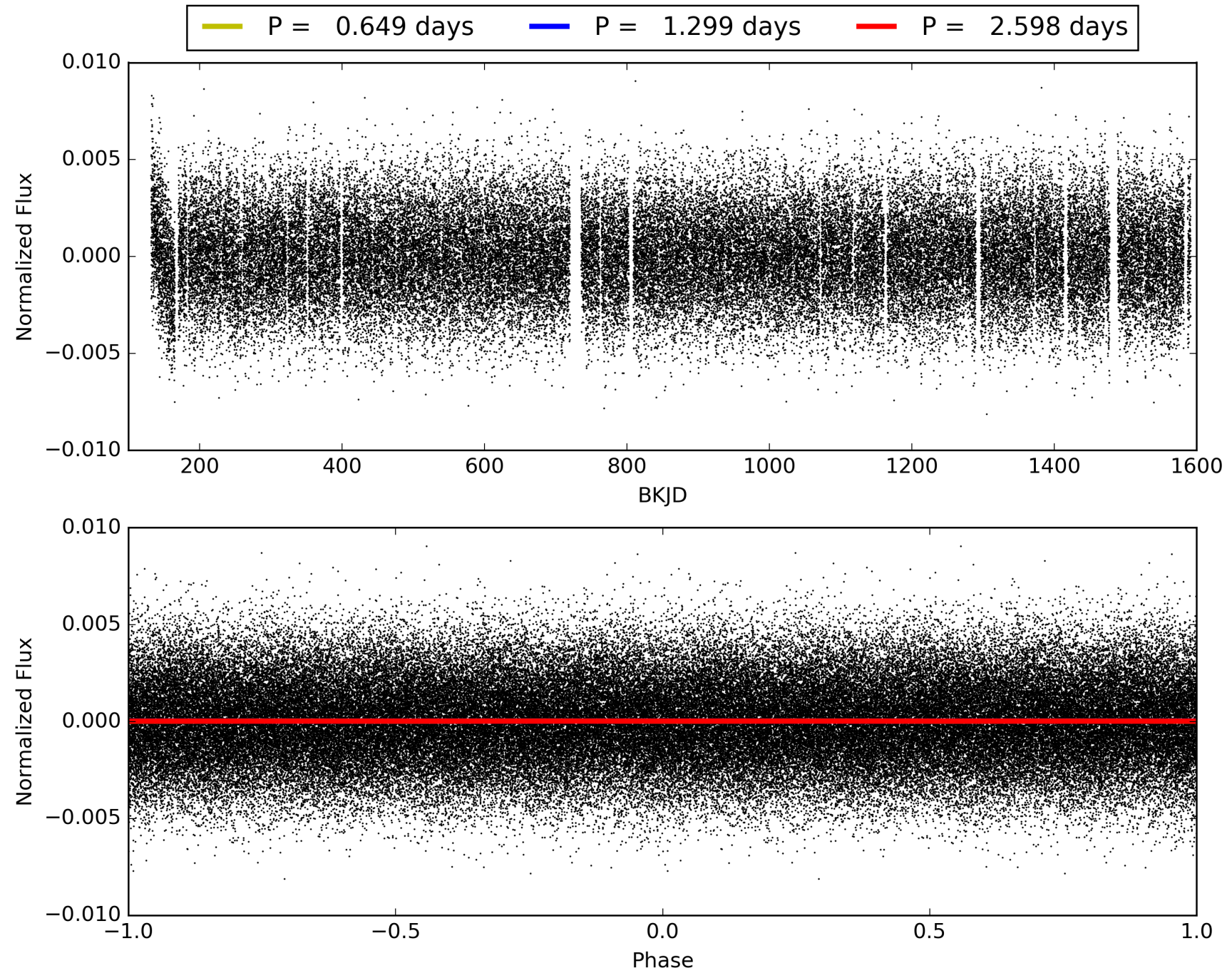
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:39:39 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002718630-02, PDC Light Curves

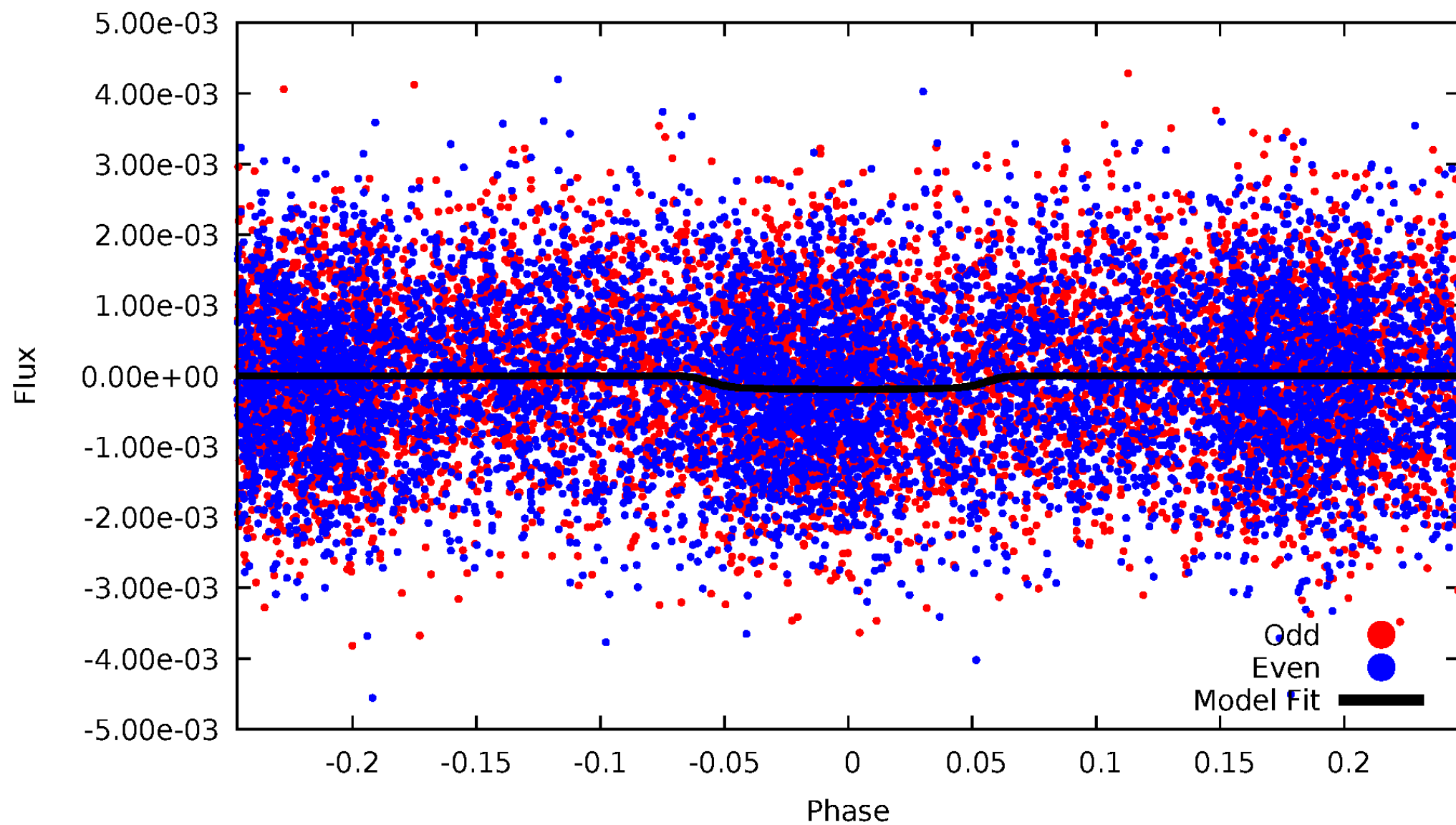


TCE 002718630-02



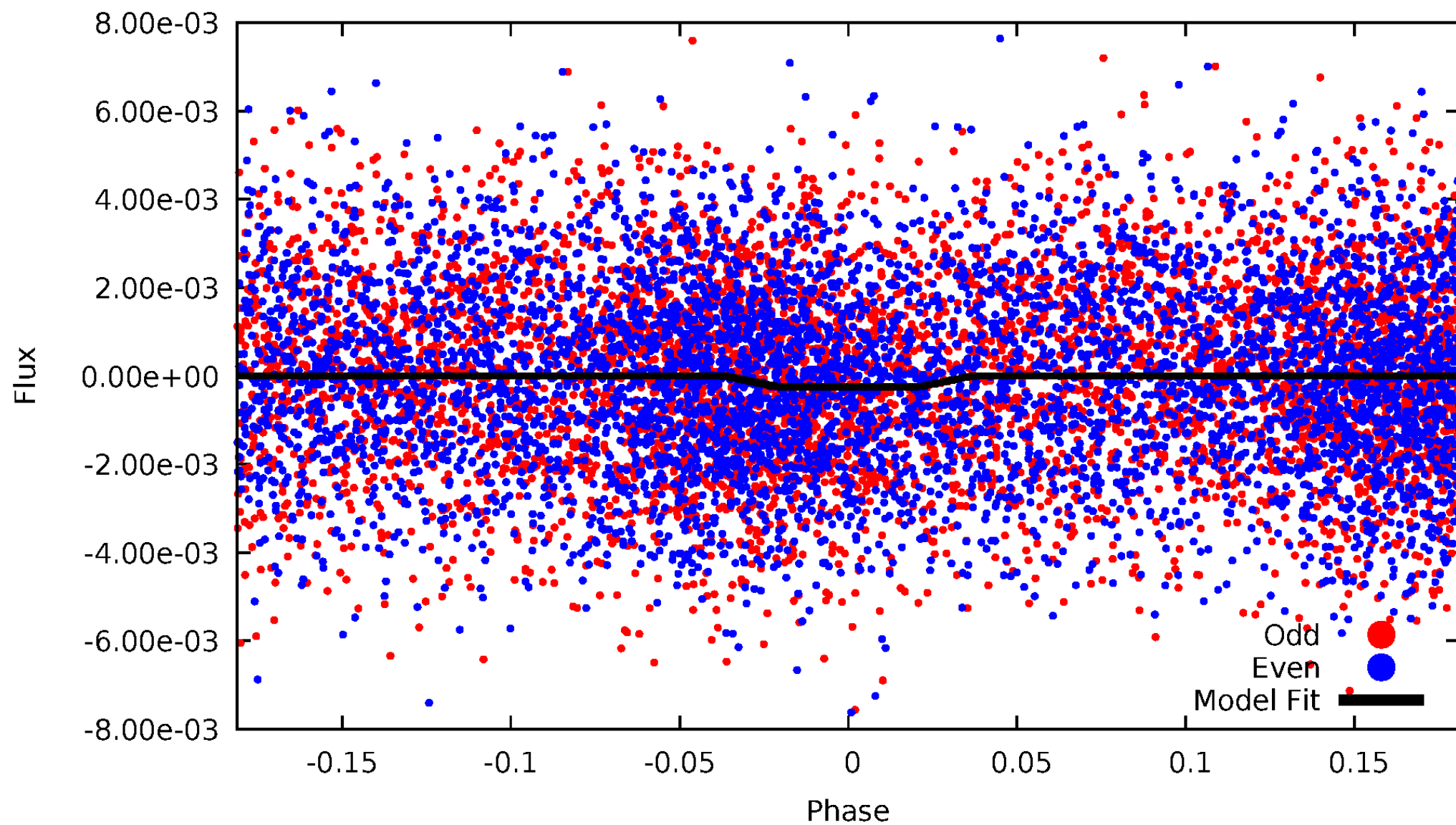
DV Odd/Even

TCE 002718630-02



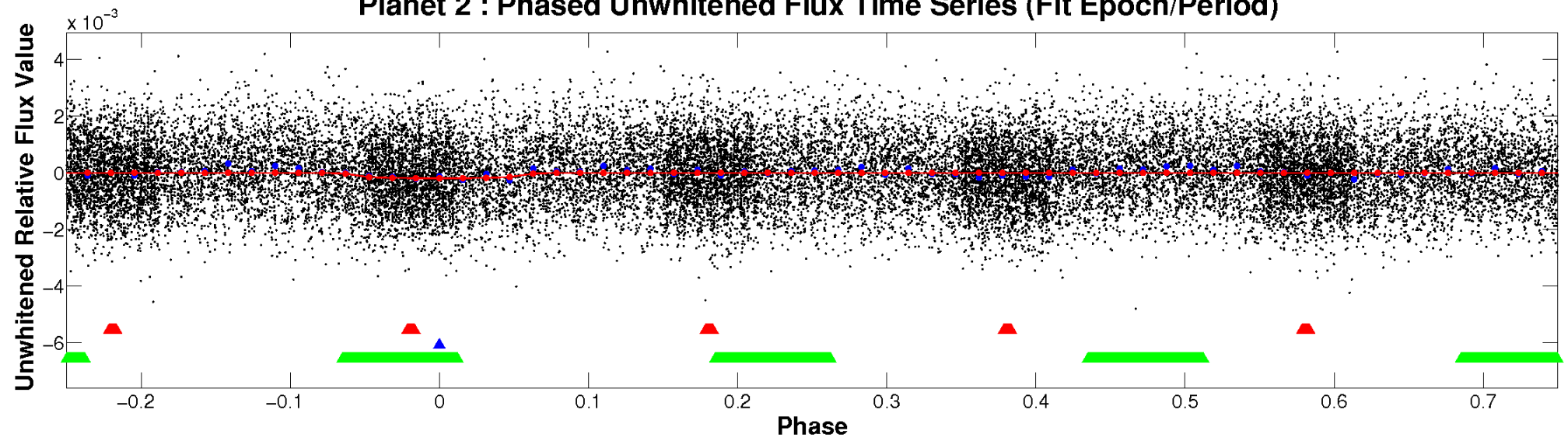
ALT Odd/Even

TCE 002718630-02

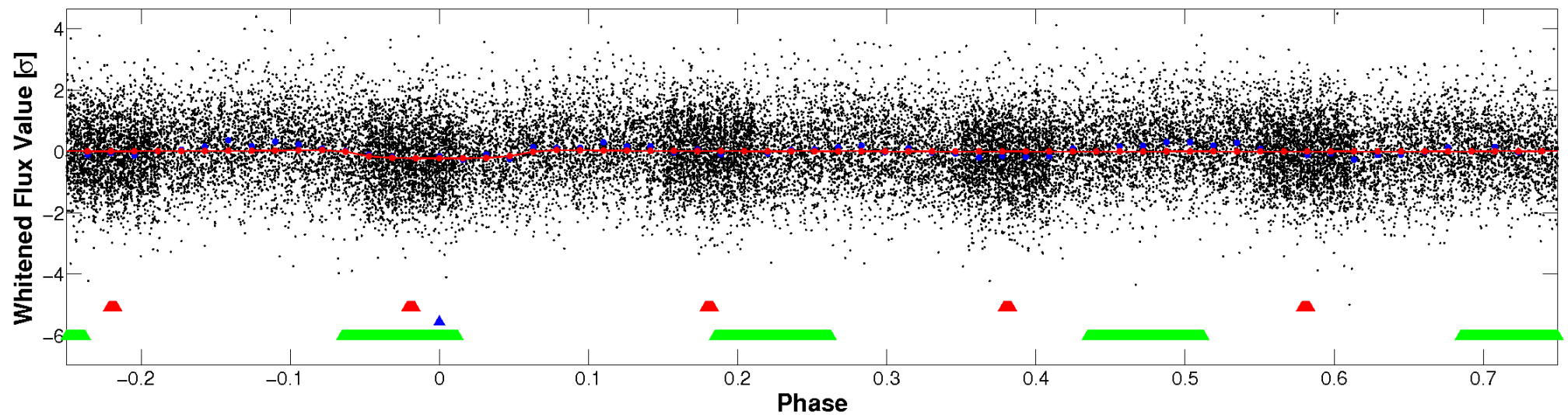


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

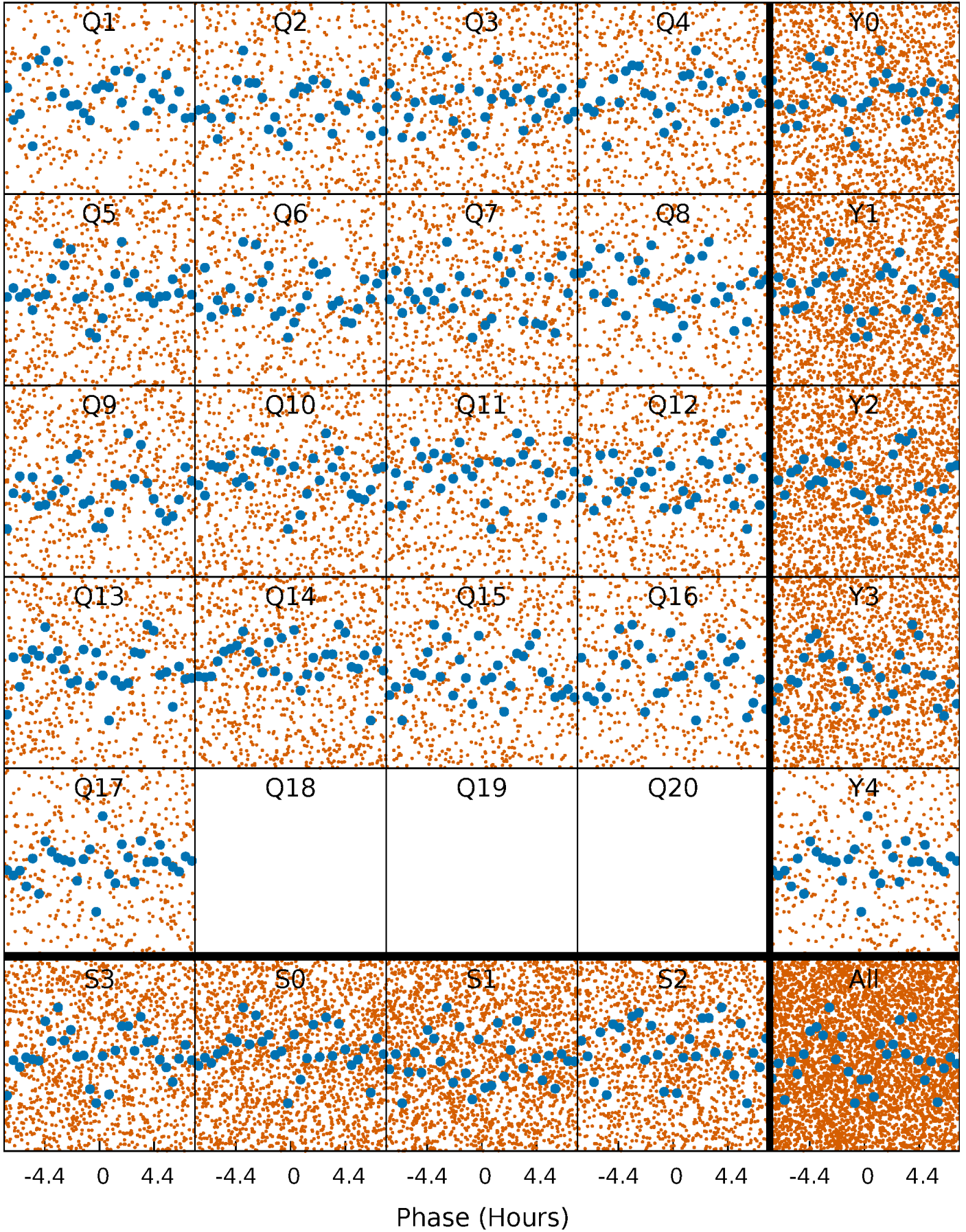


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



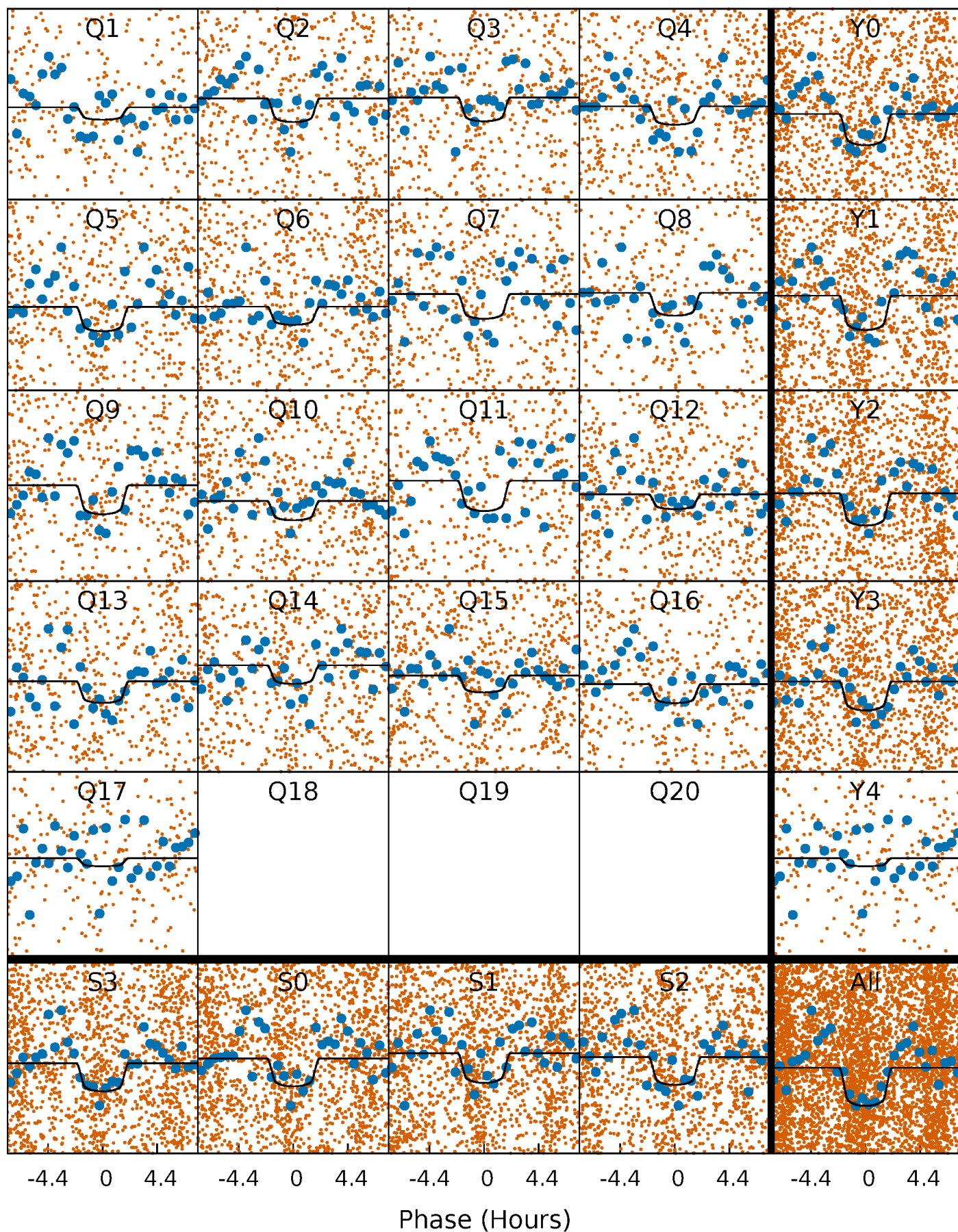
PDC Quarter-Phased Transit Curves

TCE 002718630-02 P= 1.298993 Days $T_0=131.605199$ (BKJD)



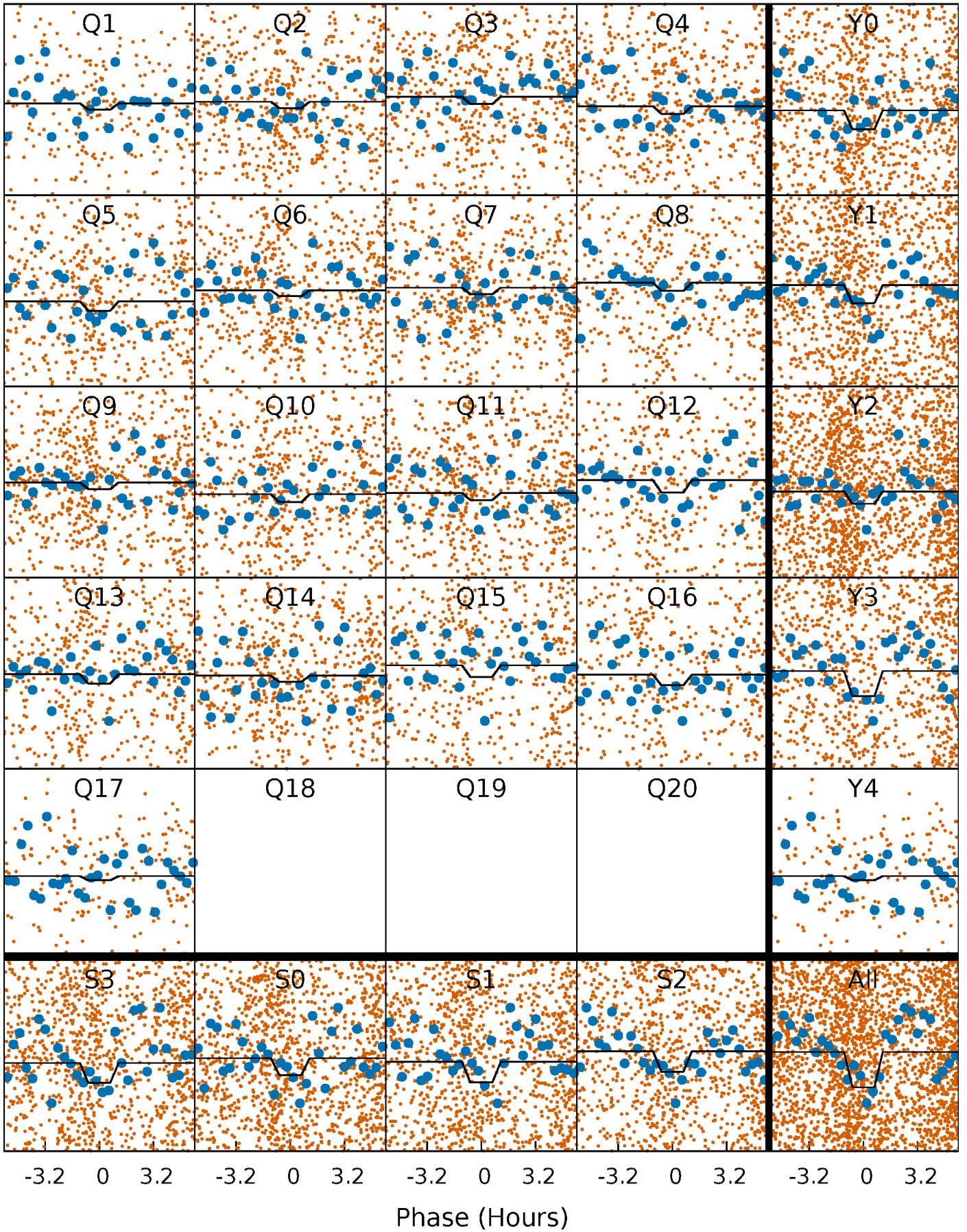
DV Quarter-Phased Transit Curves

TCE 002718630-02 P= 1.298993 Days $T_0=131.605199$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

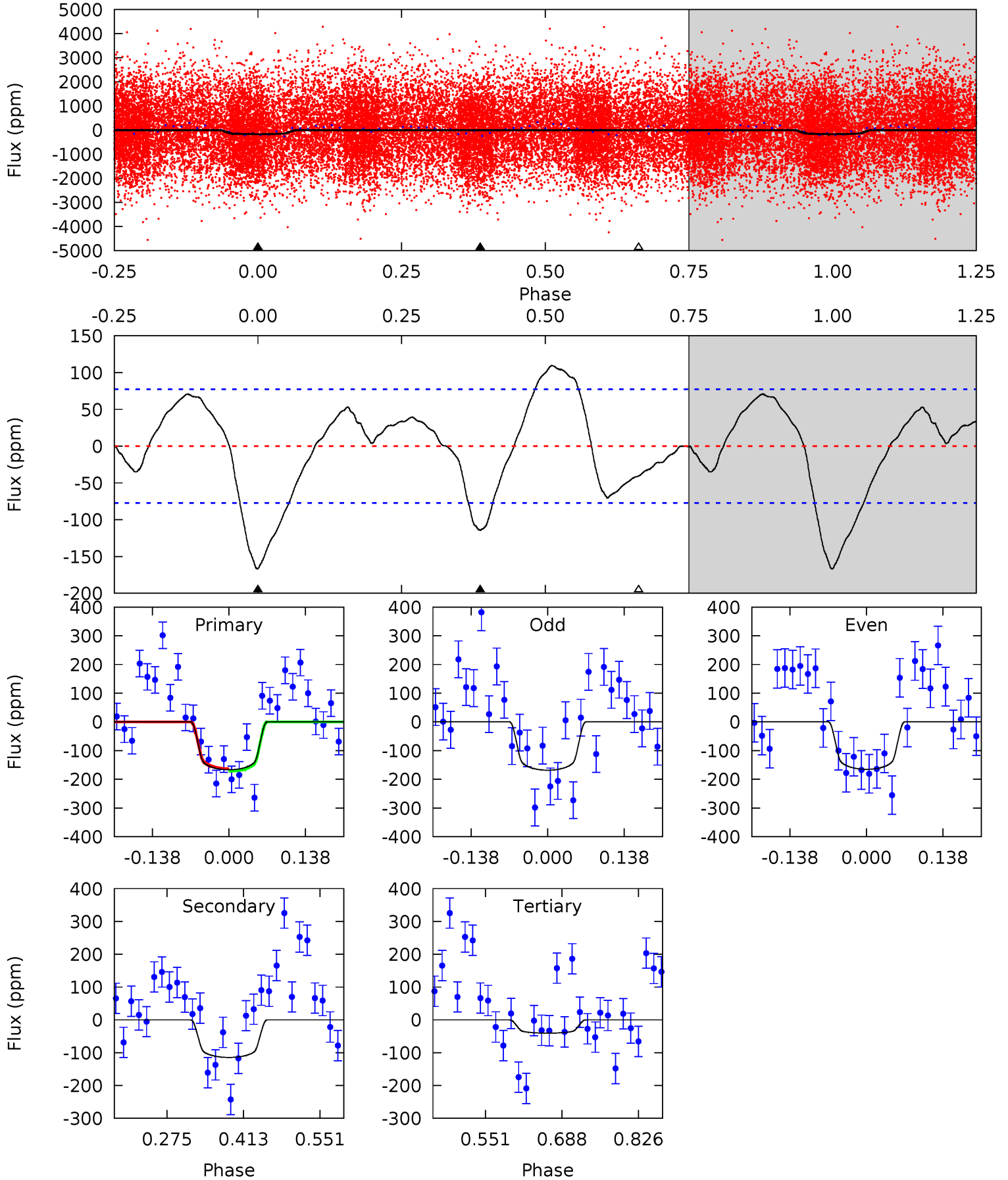
TCE 002718630-02 P= 1.299029 Days $T_0=131.602022$ (BKJD)



DV Model-Shift Uniqueness Test

002718630-02, P = 1.298993 Days, E = 131.605199 Days

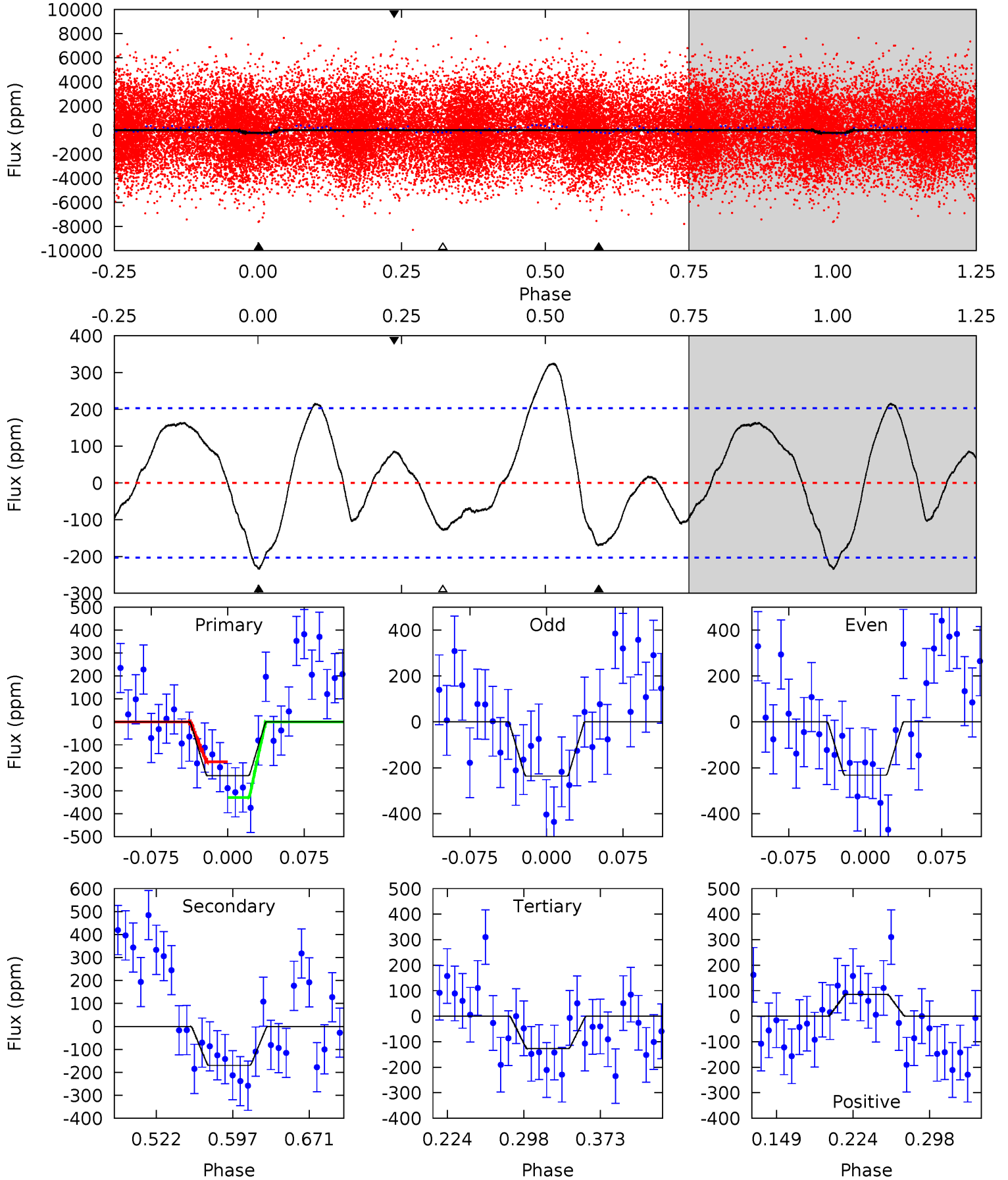
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.71	6.67	2.36	0	4.50	1.48	2.47	7.35	9.71	4.30	6.67	0.09	0.97	0.40	0.23



Alt Model-Shift Uniqueness Test

002718630-02, P = 1.299029 Days, E = 131.602022 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.33	3.87	2.90	1.95	4.63	1.78	2.51	2.43	3.39	0.96	1.92	0.05	1.02	0.58	1.71



Stellar Parameters For KIC 002718630

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7383^{+206}_{-324}	$4.159^{+0.105}_{-0.195}$	$0.070^{+0.200}_{-0.350}$	$1.747^{+0.569}_{-0.306}$	$1.604^{+0.214}_{-0.235}$	$0.424^{+0.205}_{-0.218}$
	+3%/-4%	+3%/-5%	+286%/-500%	+33%/-18%	+13%/-15%	+48%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002718630-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-115±17	$2.88^{+1.24}_{-1.18}$	3662^{+305}_{-236}	6058^{+2200}_{-965}	$5.671^{+10.493}_{-2.958}$
Alt.	-170±44	$3.04^{+1.33}_{-1.19}$	3688^{+266}_{-234}	6495^{+2250}_{-1103}	$7.162^{+11.922}_{-3.802}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

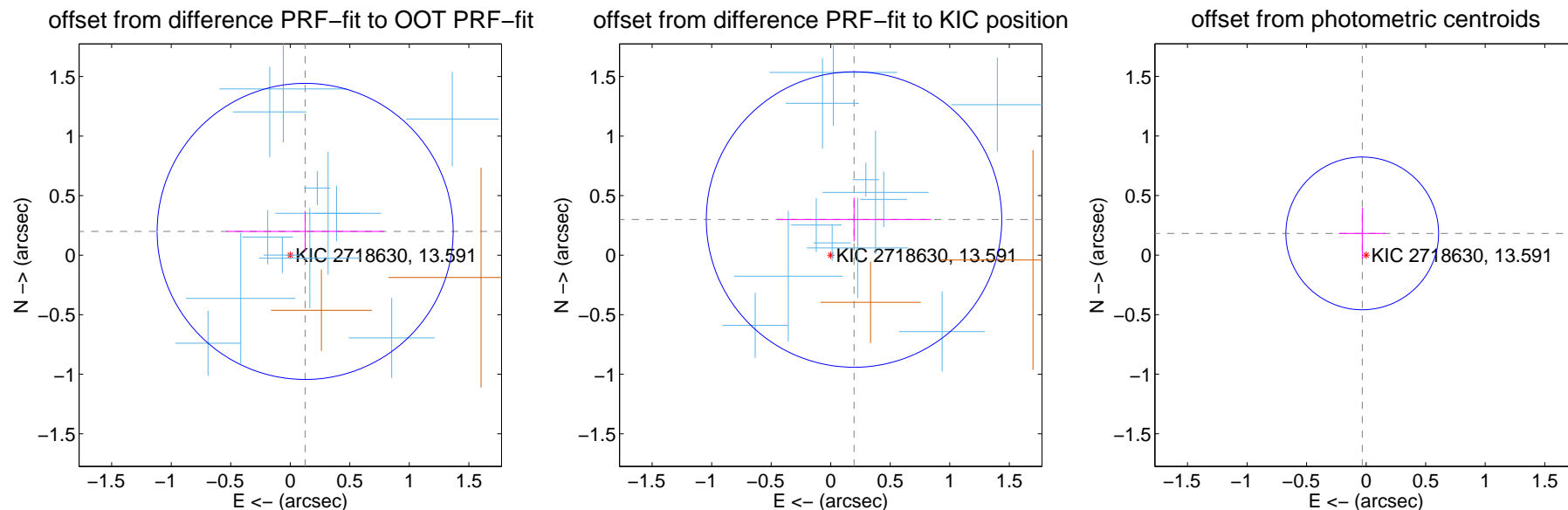
DV Centroid Data

Supplemental centroid analysis for 002718630-02. Kepler magnitude: 13.59. Transit SNR 12.14

There are 12 quarters with good PRF difference image offsets

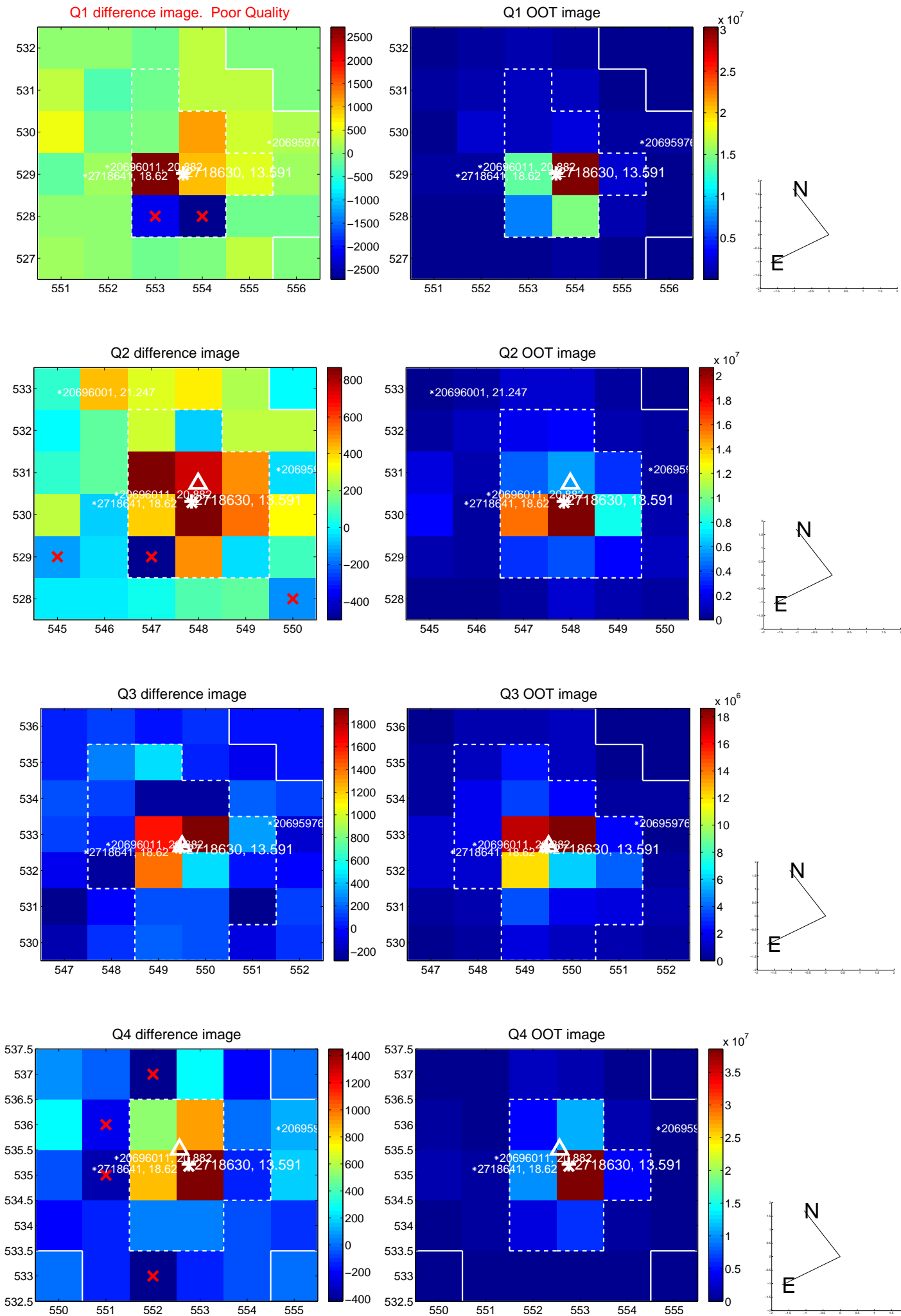
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.235 ± 0.414	0.57	-0.125 ± 0.663	0.199 ± 0.171
PRF-fit source offset from KIC position	0.357 ± 0.414	0.86	-0.196 ± 0.648	0.299 ± 0.184
photometric centroid source offset	0.19 ± 0.21	0.87	0.03 ± 0.20	0.18 ± 0.21

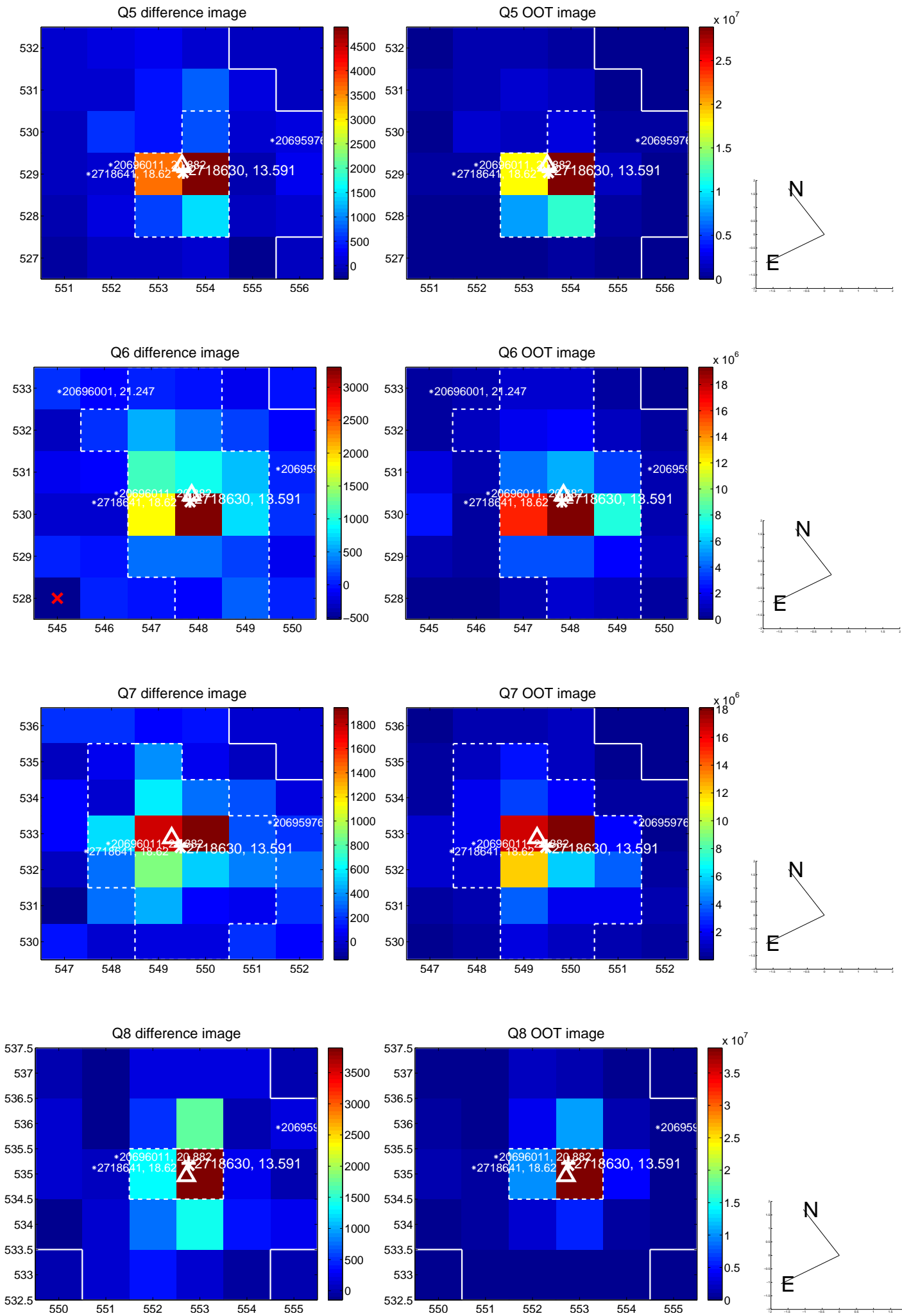


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

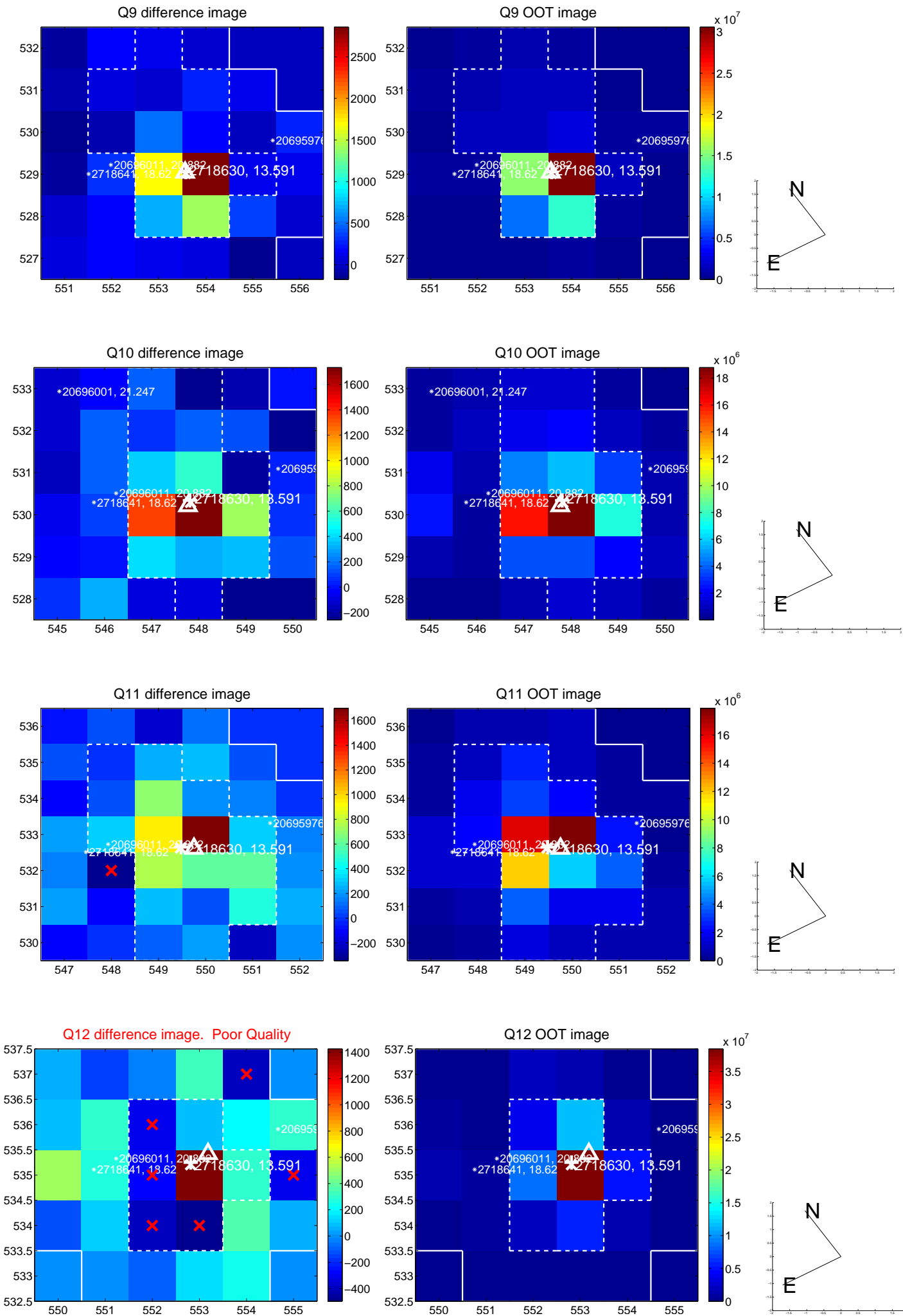
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



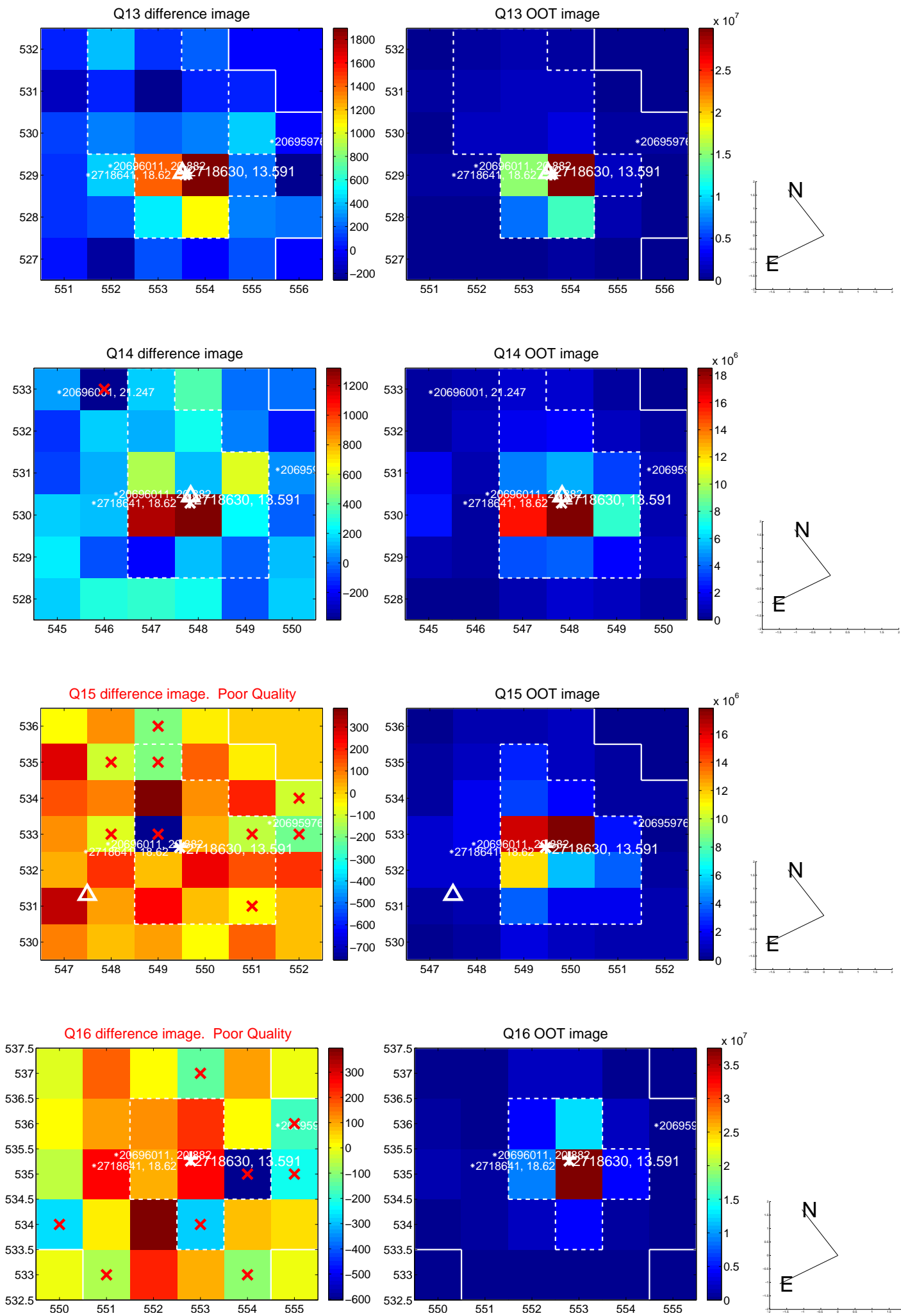
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



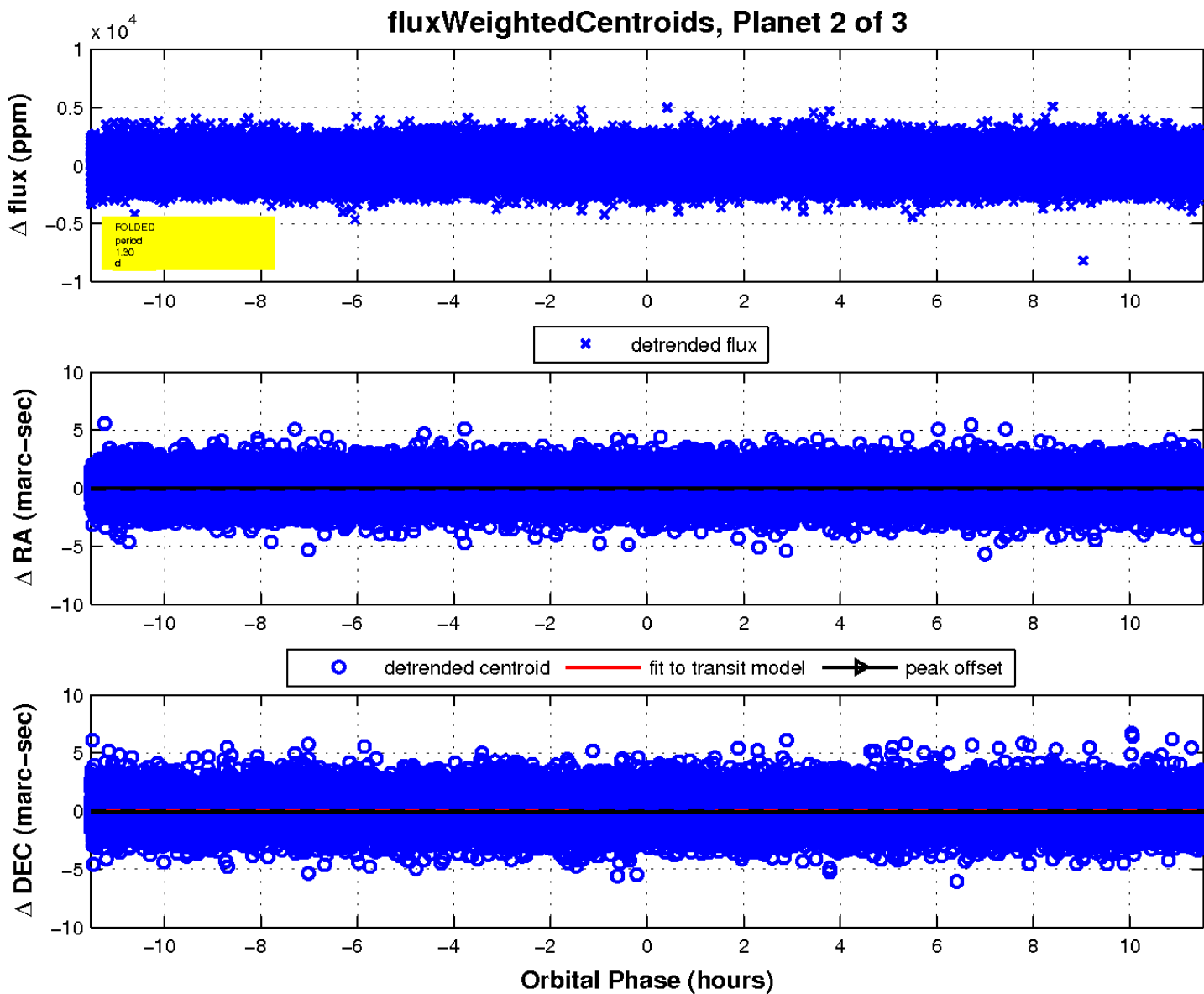
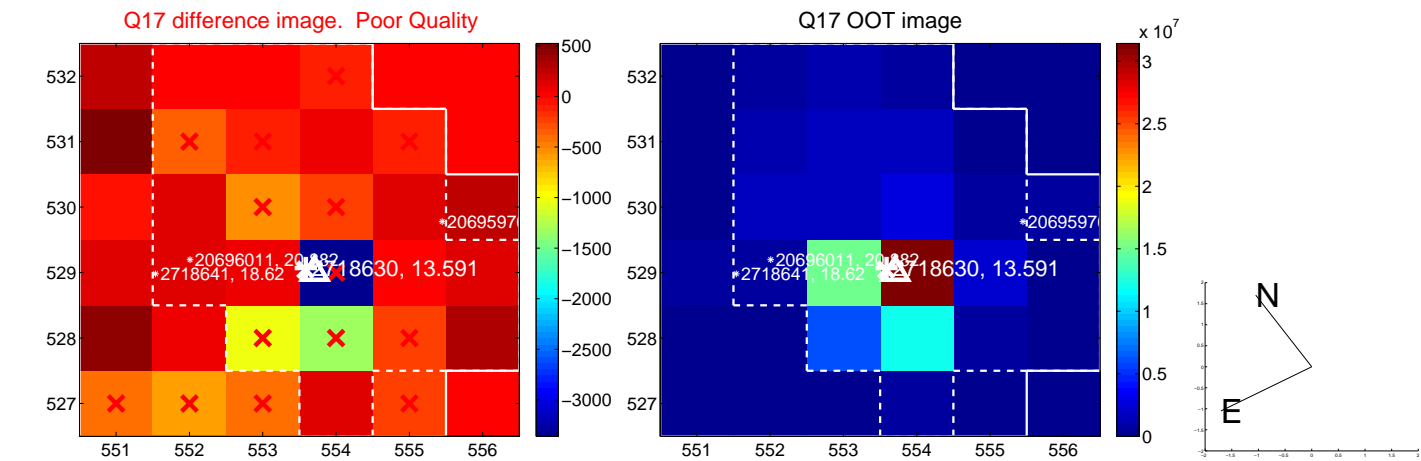
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

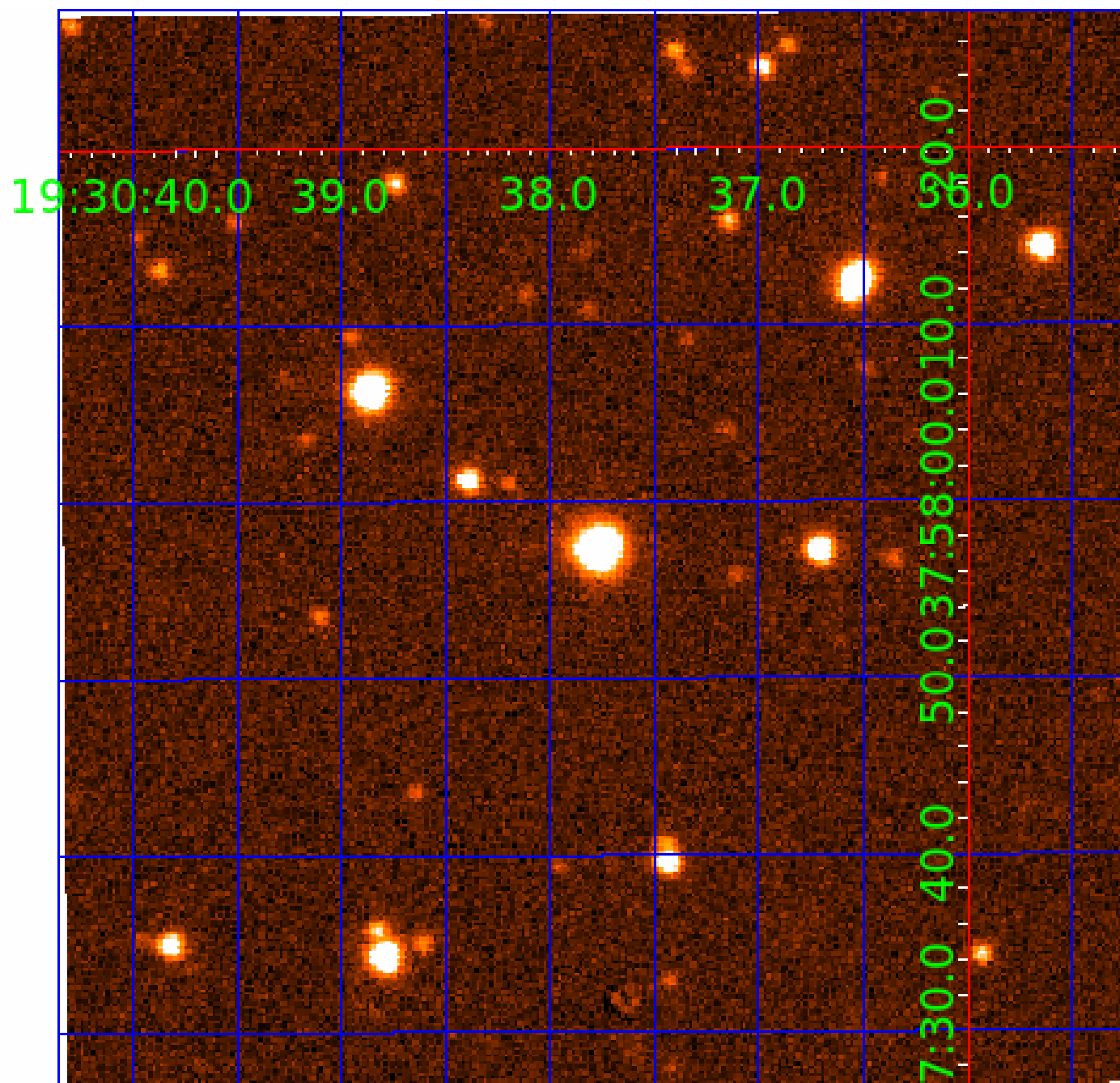


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002718630

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002718630-01	OBS	No	0.779392	131.583719	78.9	3.360	13.8	9.7	1.75	7383	1.80	21561.53
002718630-02	OBS	No	1.298993	131.605199	190.9	3.843	11.4	12.1	1.75	7383	2.79	10911.35
002718630-03	OBS	No	0.974312	132.170047	142.2	10.777	10.1	10.9	1.75	7383	2.11	16011.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002718630-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002718630-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
002718630-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

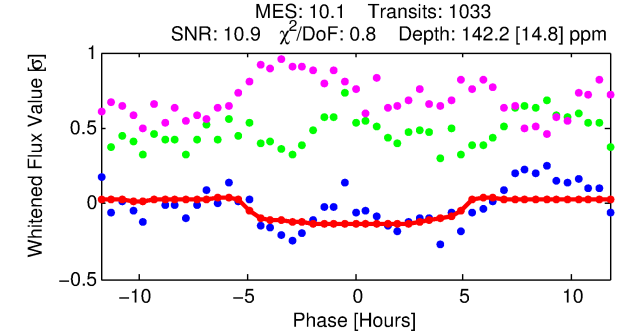
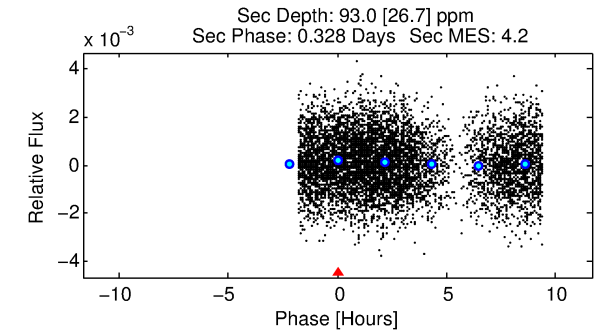
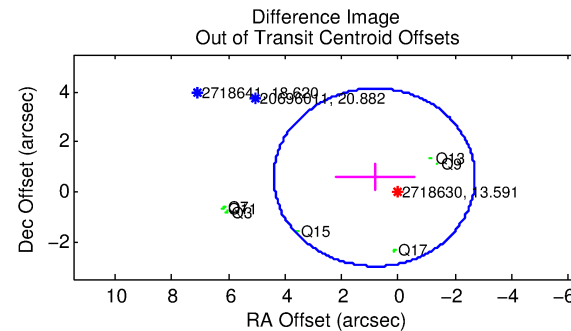
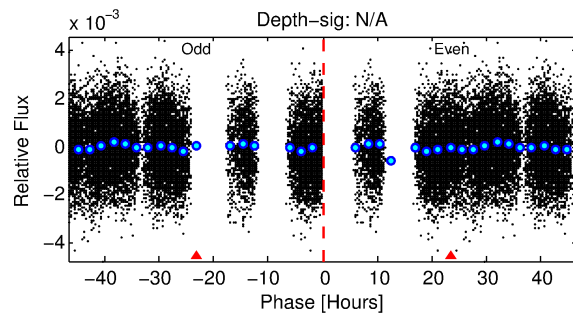
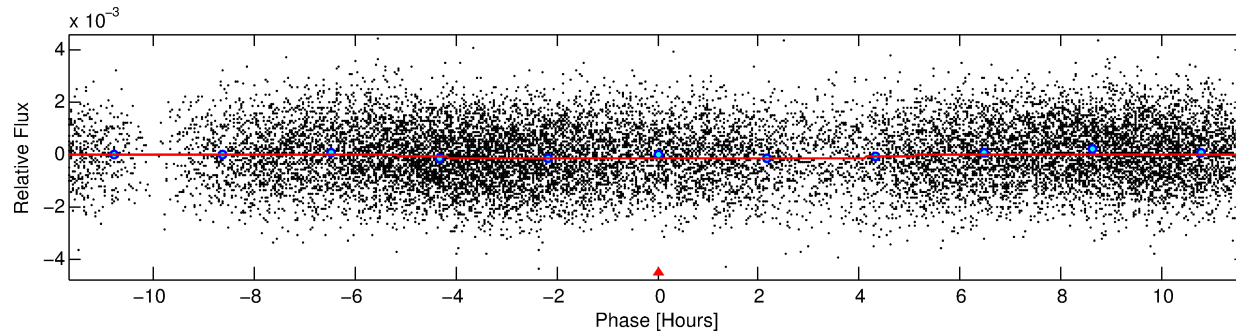
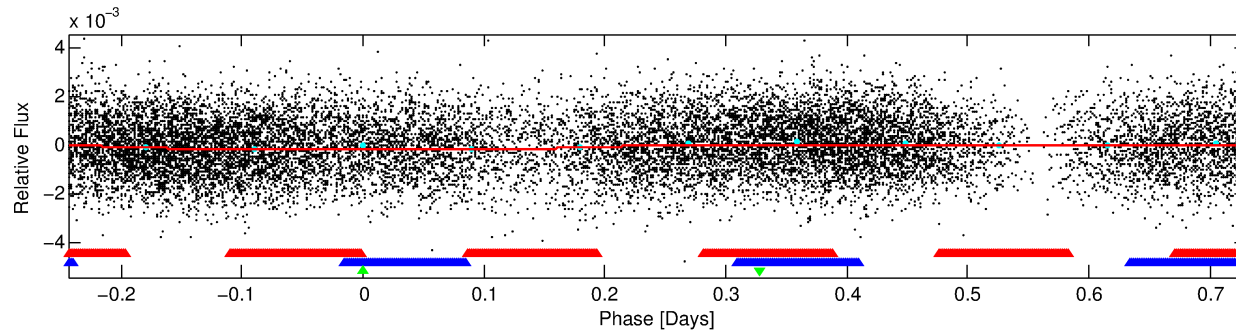
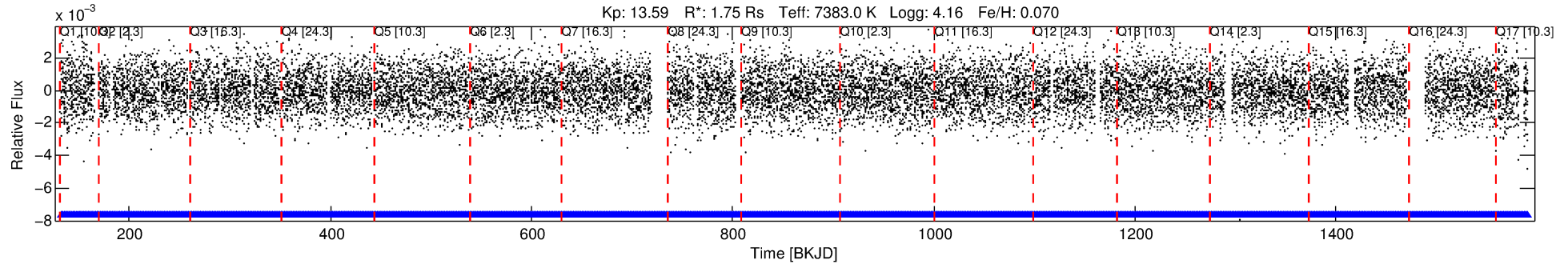
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002718630-03

No Significant Match Found

DV One-Page Summary

KIC: 2718630 Candidate: 3 of 3 Period: 0.974 d



DV Fit Results:

Period = 0.97431 [0.00002] d
Epoch = 132.1700 [0.0087] BKJD
Rp/R* = 0.0111 [0.0052]
a/R* = 1.02 [0.09]
b = 0.05 [55.99]
Seff = 16011.19 [6554.10]
Teq = 2868 [294] K
Rp = 2.11 [1.21] Re
a = 0.0225 [0.0059] AU
Ag = 5.82 [6.10] [0.79σ]
Teffp = 6888 [1717] K [2.31σ]

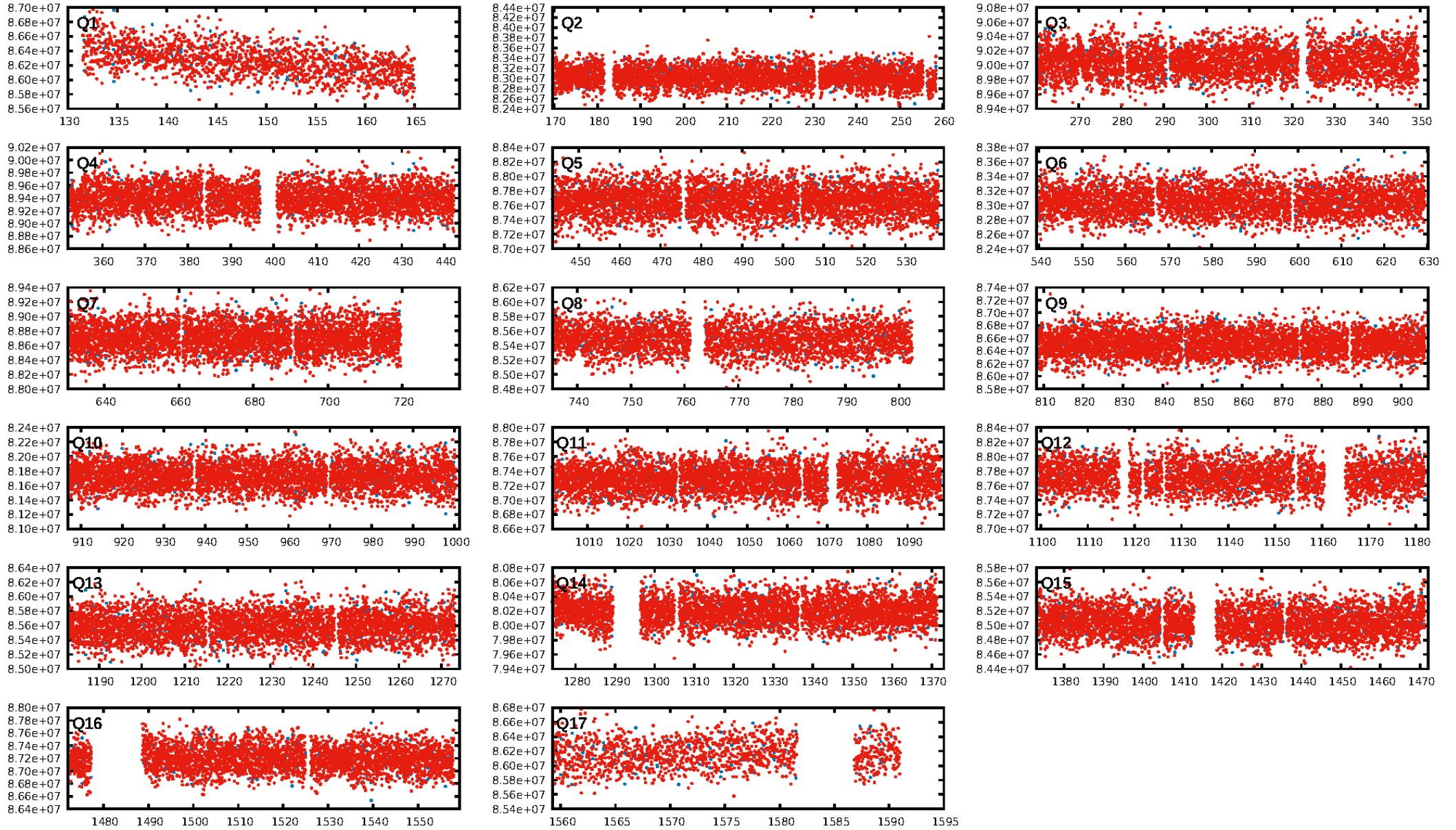
DV Diagnostic Results:

ShortPeriod-sig: 32.1% [0.41σ]
LongPeriod-sig: 50.4% [0.68σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [987/987]
GhostDiagnostic-chr: 1.605
Centroid-sig: 0.4%
Centroid-so: 0.248 arcsec [1.65σ]
OotOffset-rm: 1.013 arcsec [0.85σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-rm: 1.009 arcsec [0.91σ]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.00 [0/17]

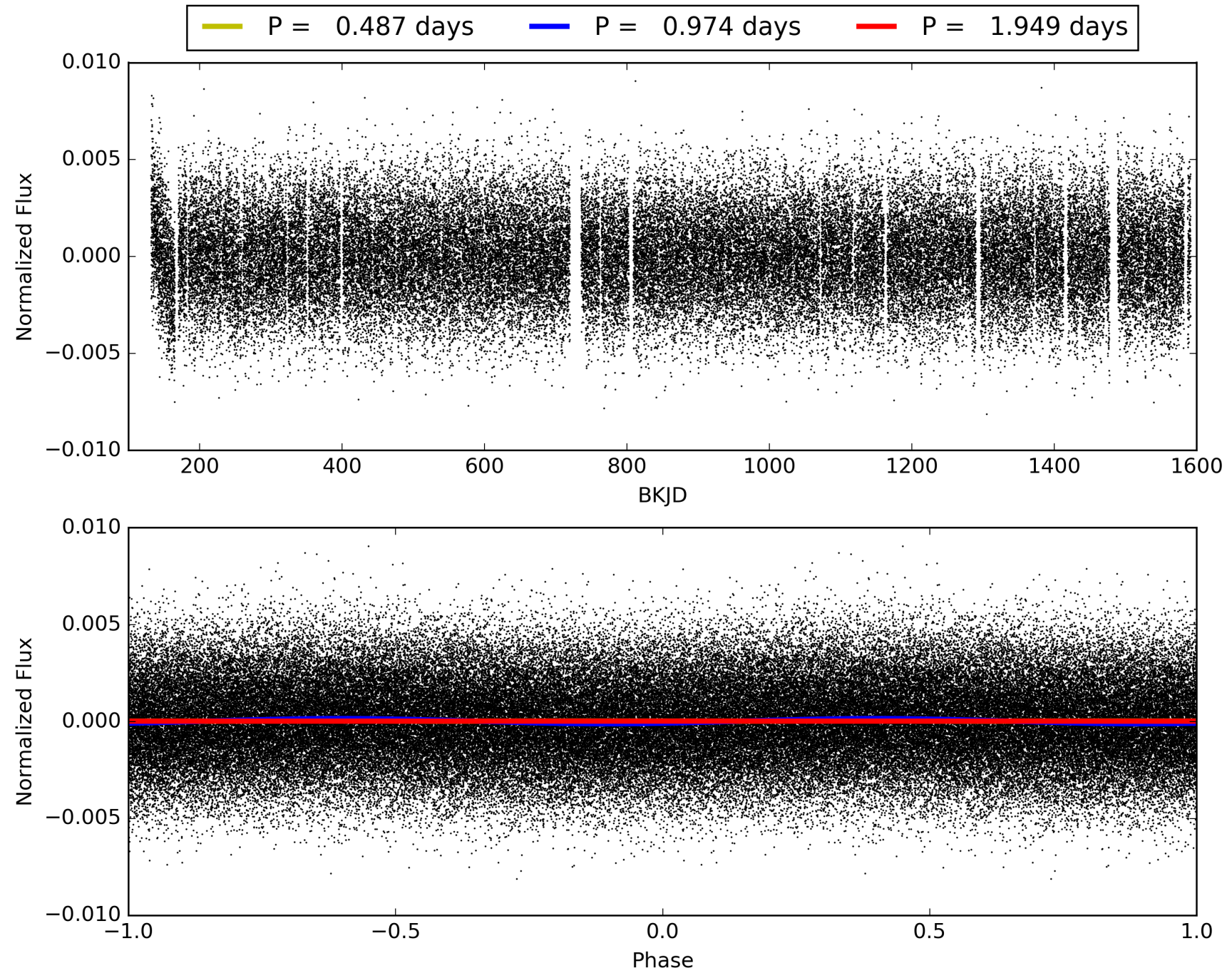
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:39:51 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002718630-03, PDC Light Curves

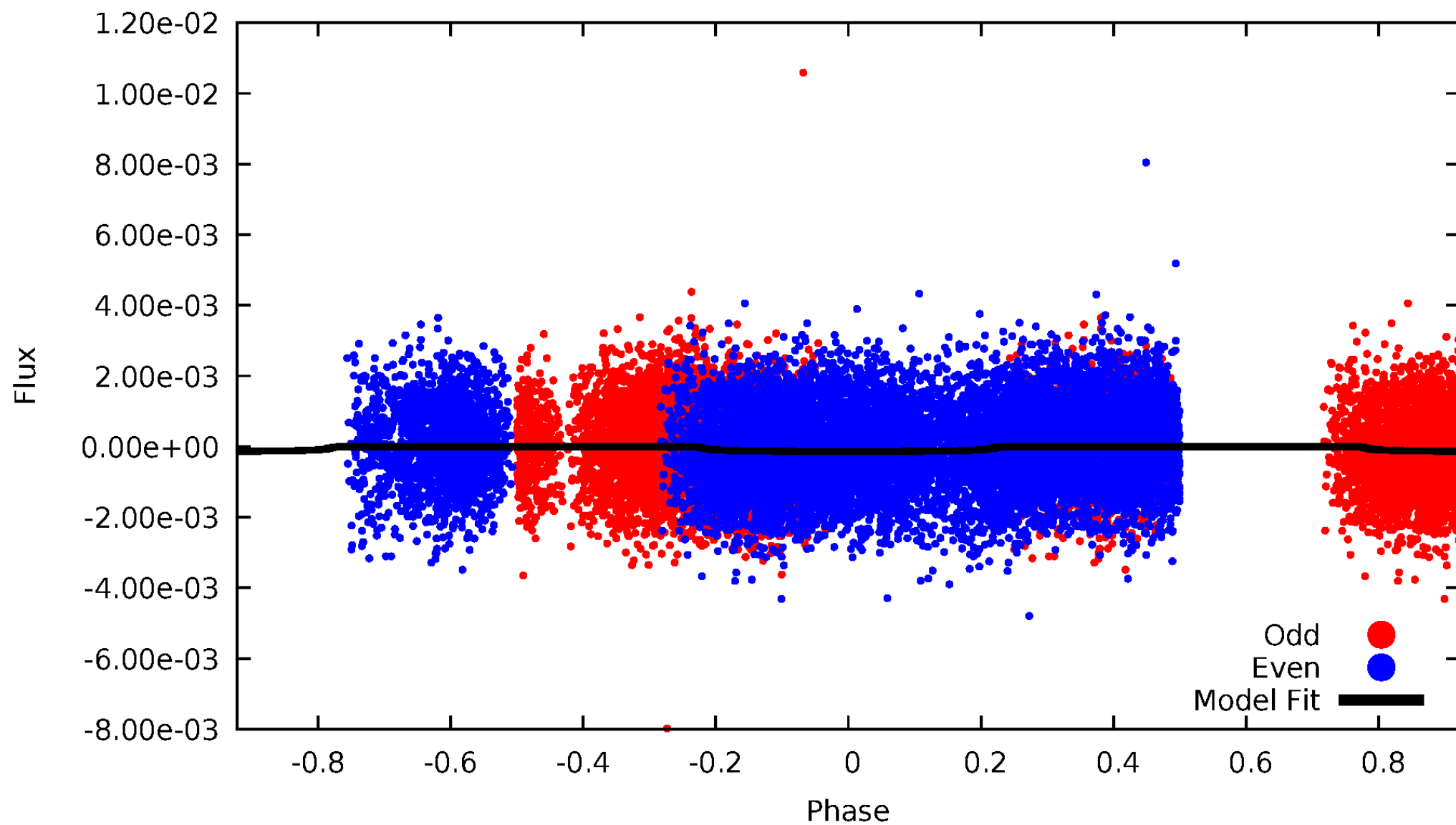


TCE 002718630-03



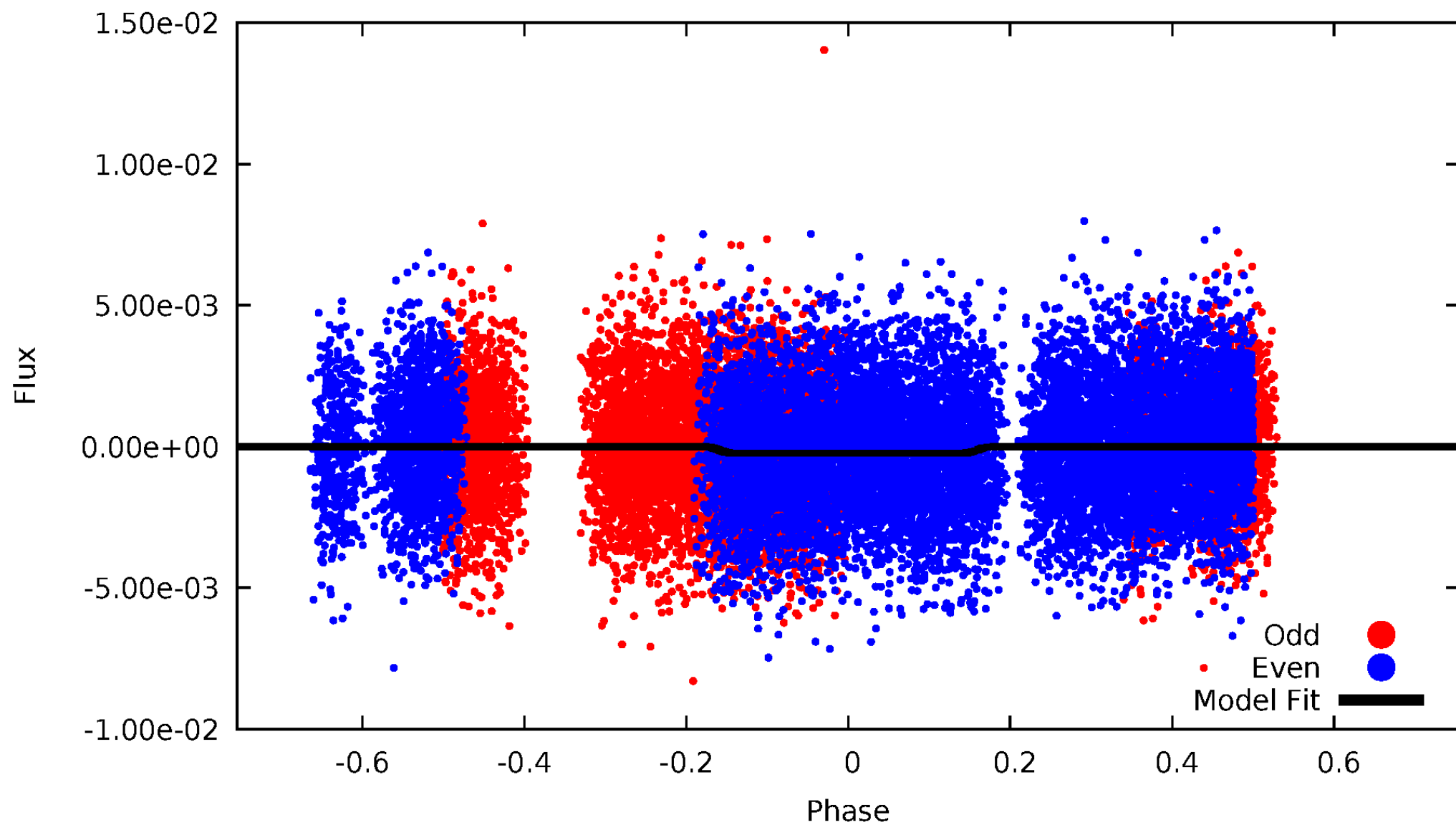
DV Odd/Even

TCE 002718630-03



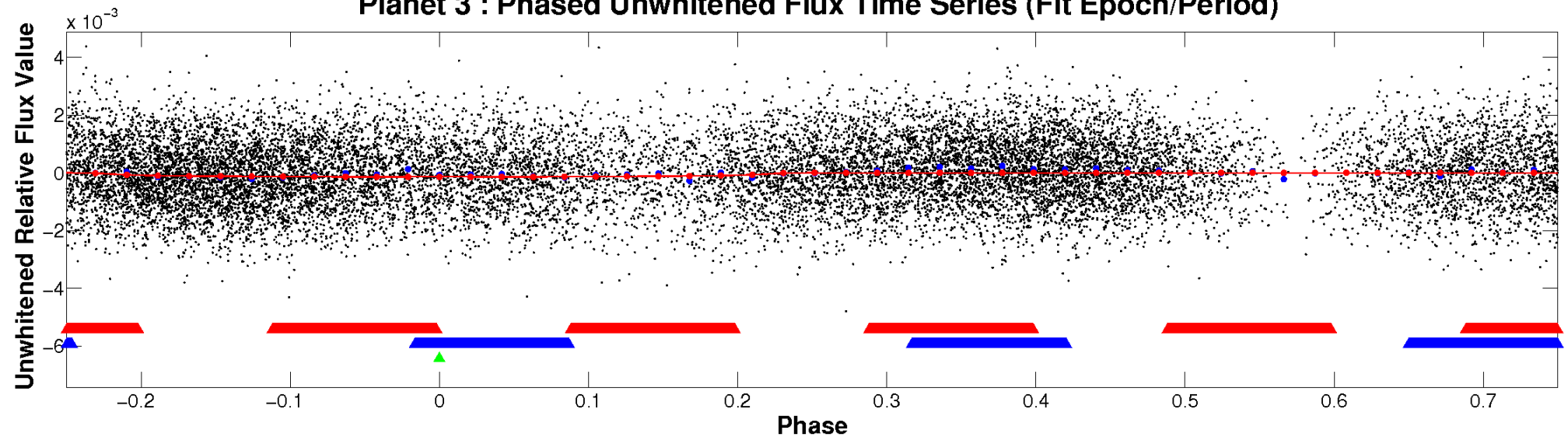
ALT Odd/Even

TCE 002718630-03

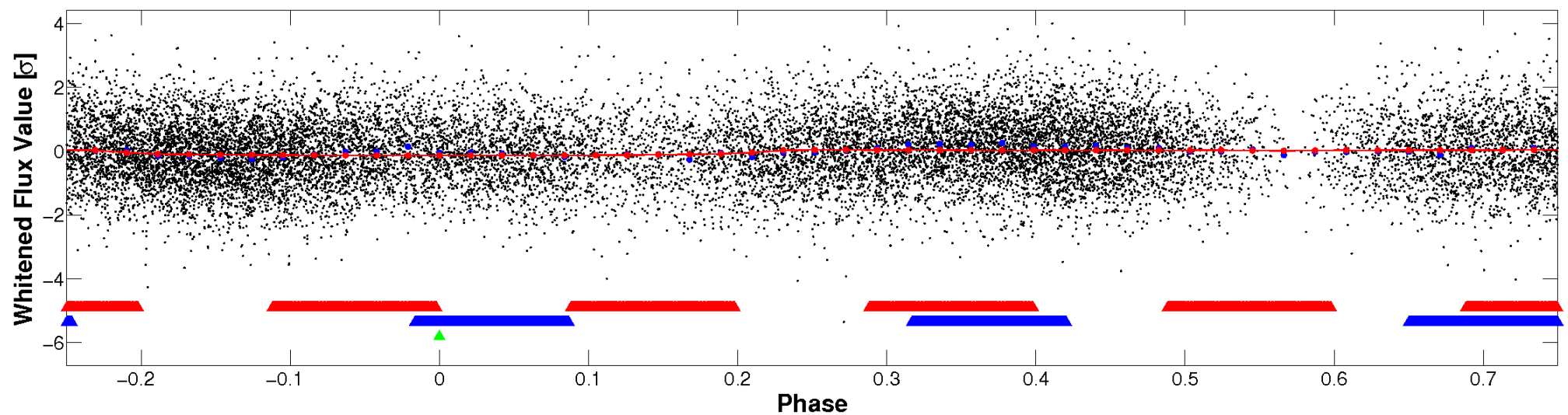


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

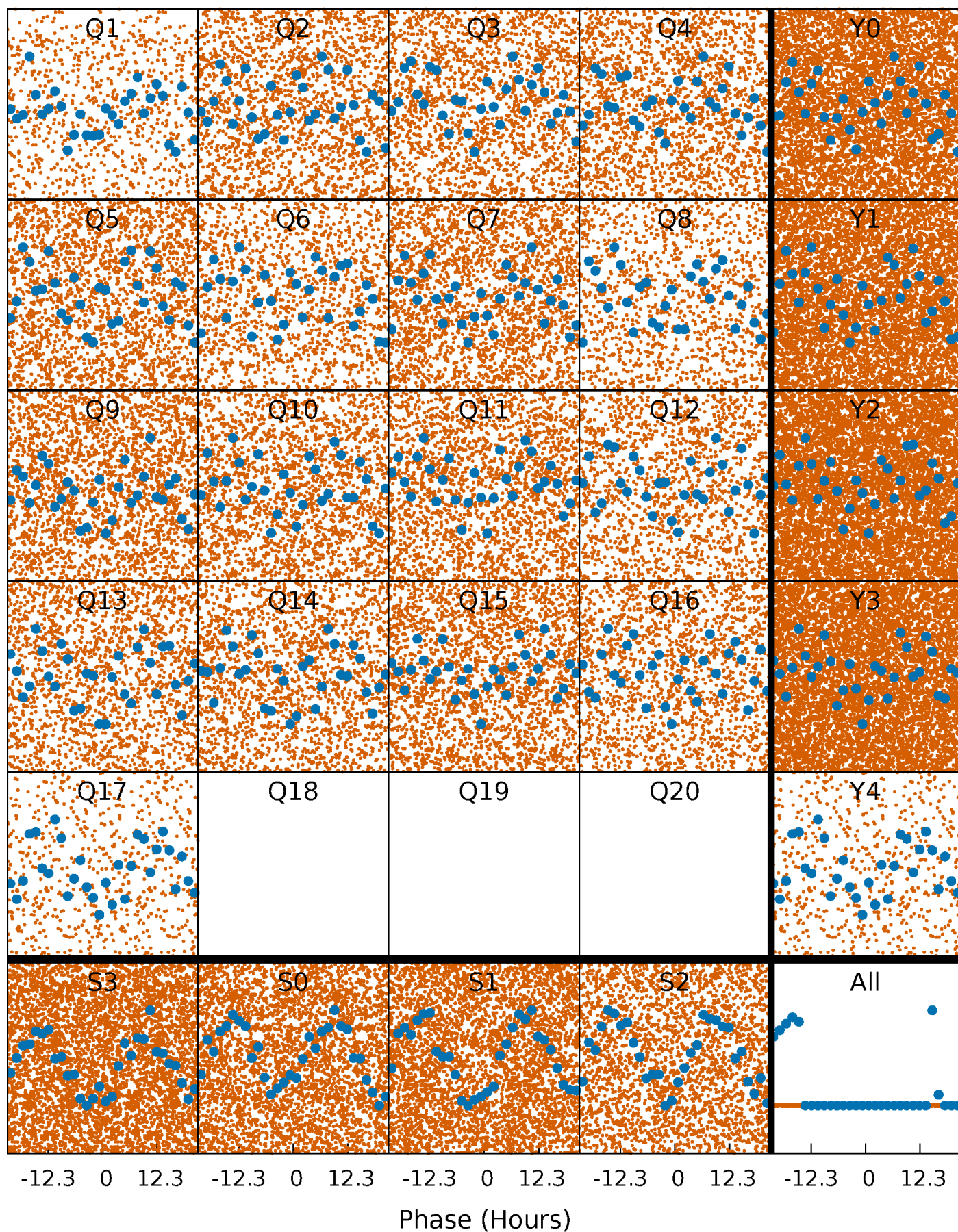


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



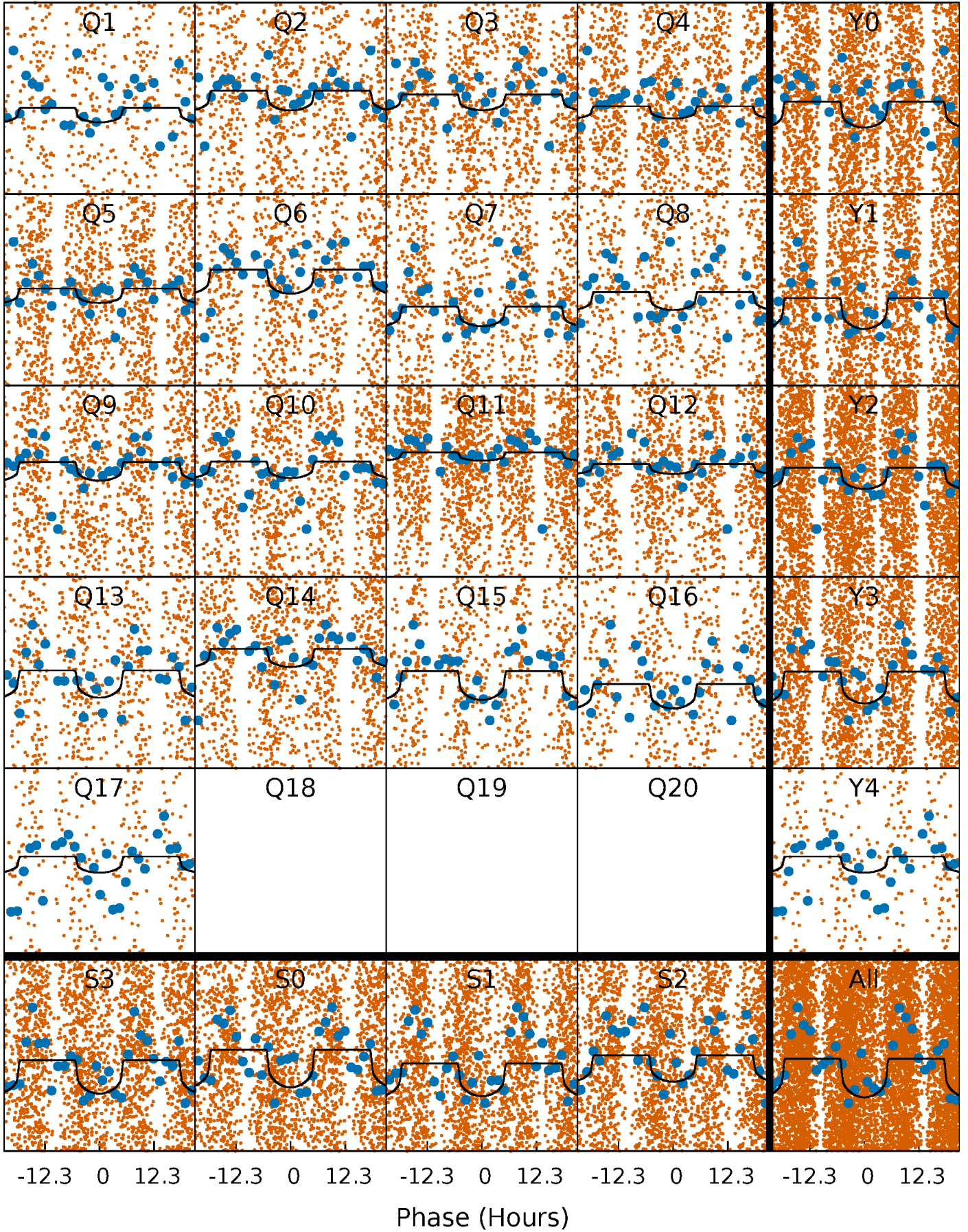
PDC Quarter-Phased Transit Curves

TCE 002718630-03 P= 0.974312 Days $T_0=132.170047$ (BKJD)



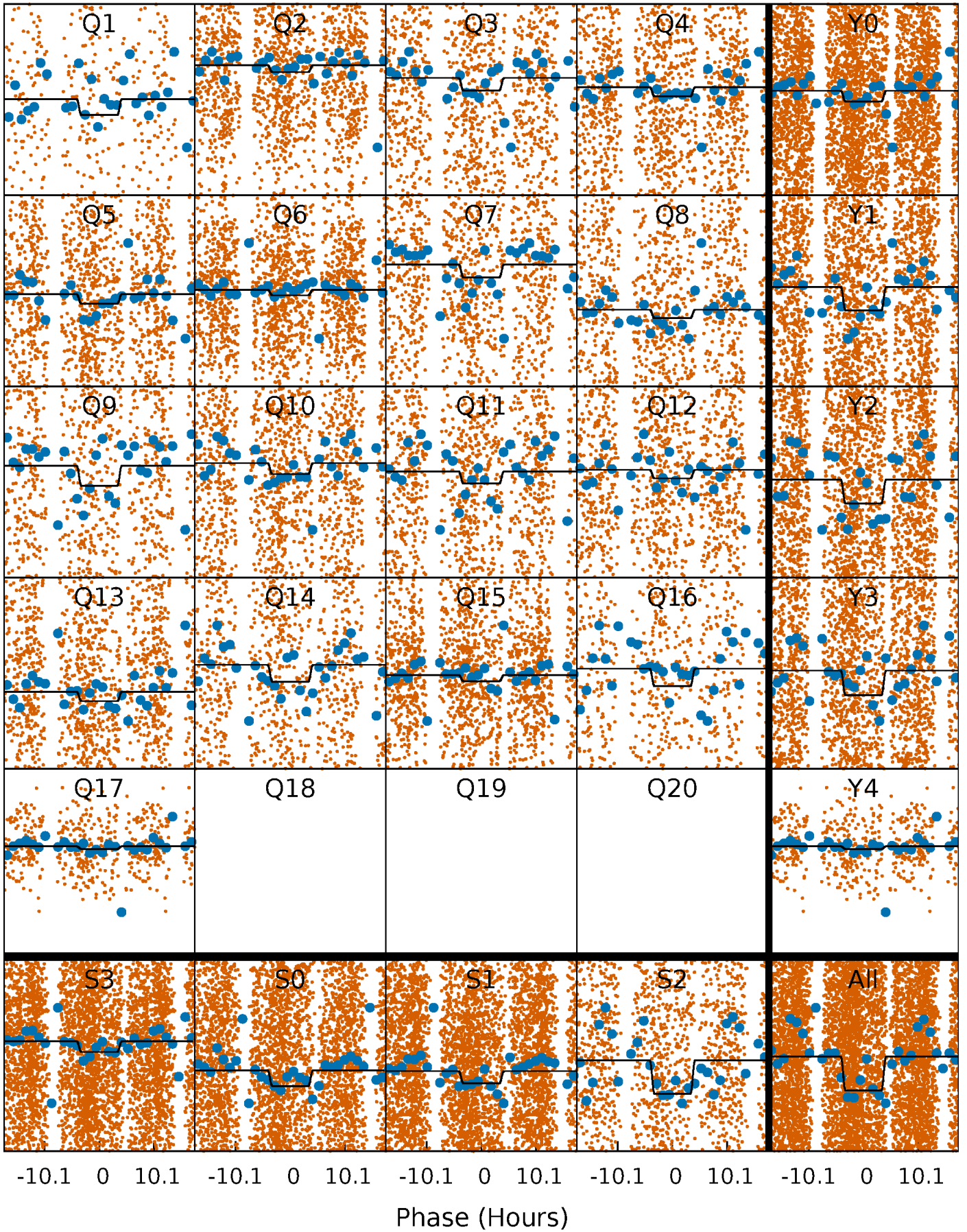
DV Quarter-Phased Transit Curves

TCE 002718630-03 P= 0.974312 Days $T_0=132.170047$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

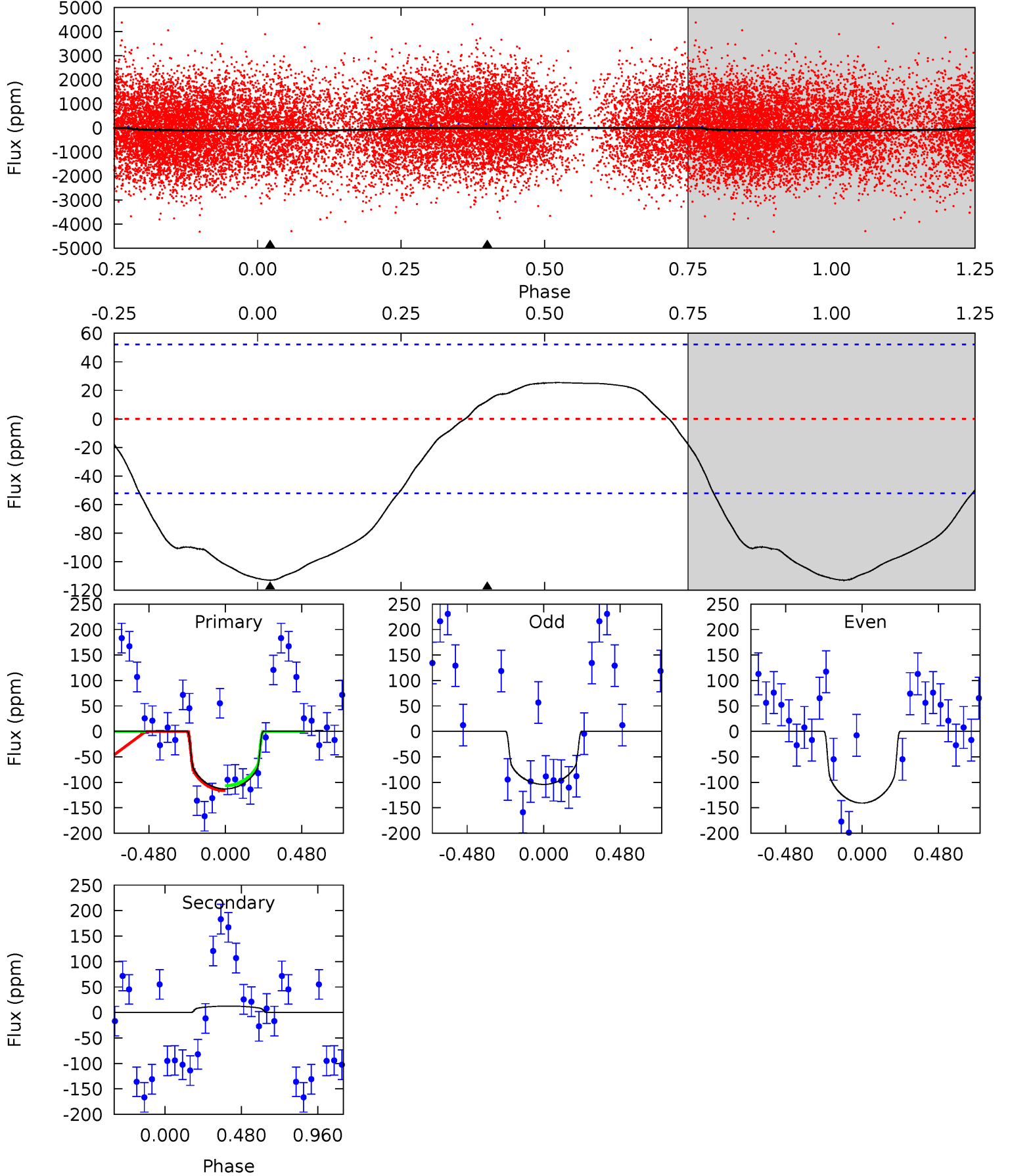
TCE 002718630-03 P= 0.974274 Days $T_0=132.136302$ (BKJD)



DV Model-Shift Uniqueness Test

002718630-03, P = 0.974312 Days, E = 131.195735 Days

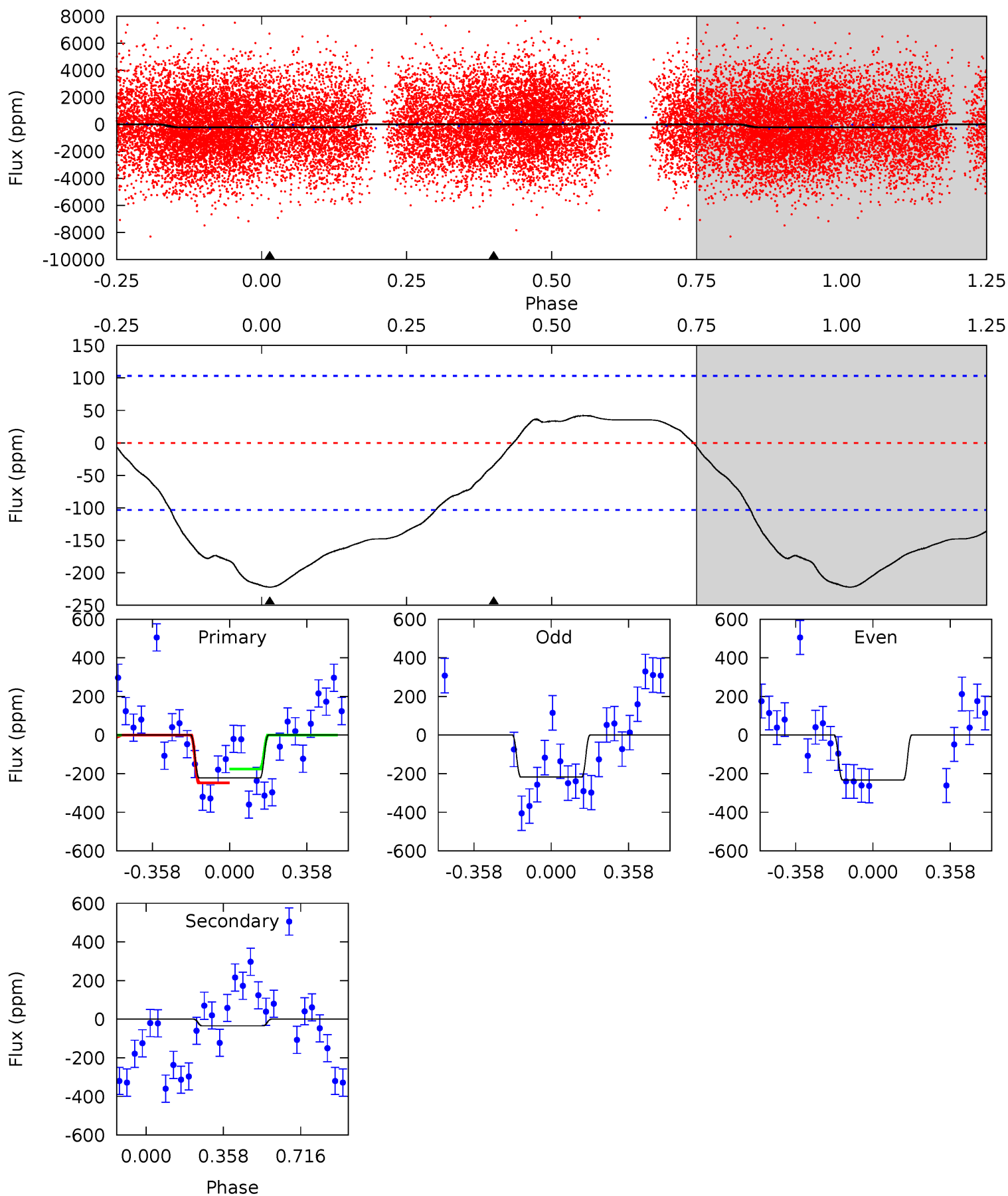
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.15	-1.02	0	0	4.22	0.71	1.11	9.15	9.15	-1.02	-1.02	1.38	1.36	0.18	0.36



Alt Model-Shift Uniqueness Test

002718630-03, P = 0.974274 Days, E = 131.162028 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.23	1.44	0	0	4.29	0.92	1.13	9.23	9.23	1.44	1.44	0.29	0.96	0.16	1.42



Stellar Parameters For KIC 002718630

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7383^{+206}_{-324}	$4.159^{+0.105}_{-0.195}$	$0.070^{+0.200}_{-0.350}$	$1.747^{+0.569}_{-0.306}$	$1.604^{+0.214}_{-0.235}$	$0.424^{+0.205}_{-0.218}$
	+3%/-4%	+3%/-5%	+286%/-500%	+33%/-18%	+13%/-15%	+48%/-51%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002718630-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	13 ± 12	$2.24^{+1.02}_{-1.05}$	4042^{+312}_{-246}	-4518^{+772}_{-1152}	$-0.617^{+0.587}_{-1.785}$
Alt.	-35 ± 24	$2.94^{+1.17}_{-1.08}$	4051^{+292}_{-258}	4316^{+1388}_{-7003}	$1.031^{+1.822}_{-0.768}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

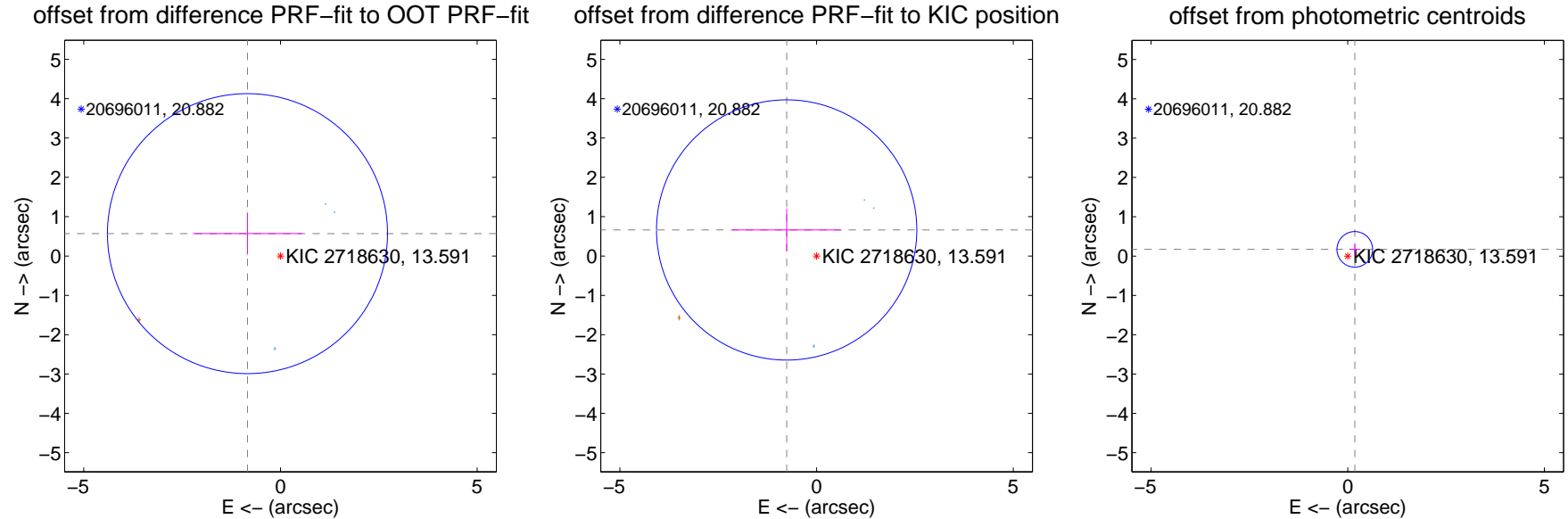
DV Centroid Data

Supplemental centroid analysis for 002718630-03. Kepler magnitude: 13.59. Transit SNR 10.86

There are 3 quarters with good PRF difference image offsets

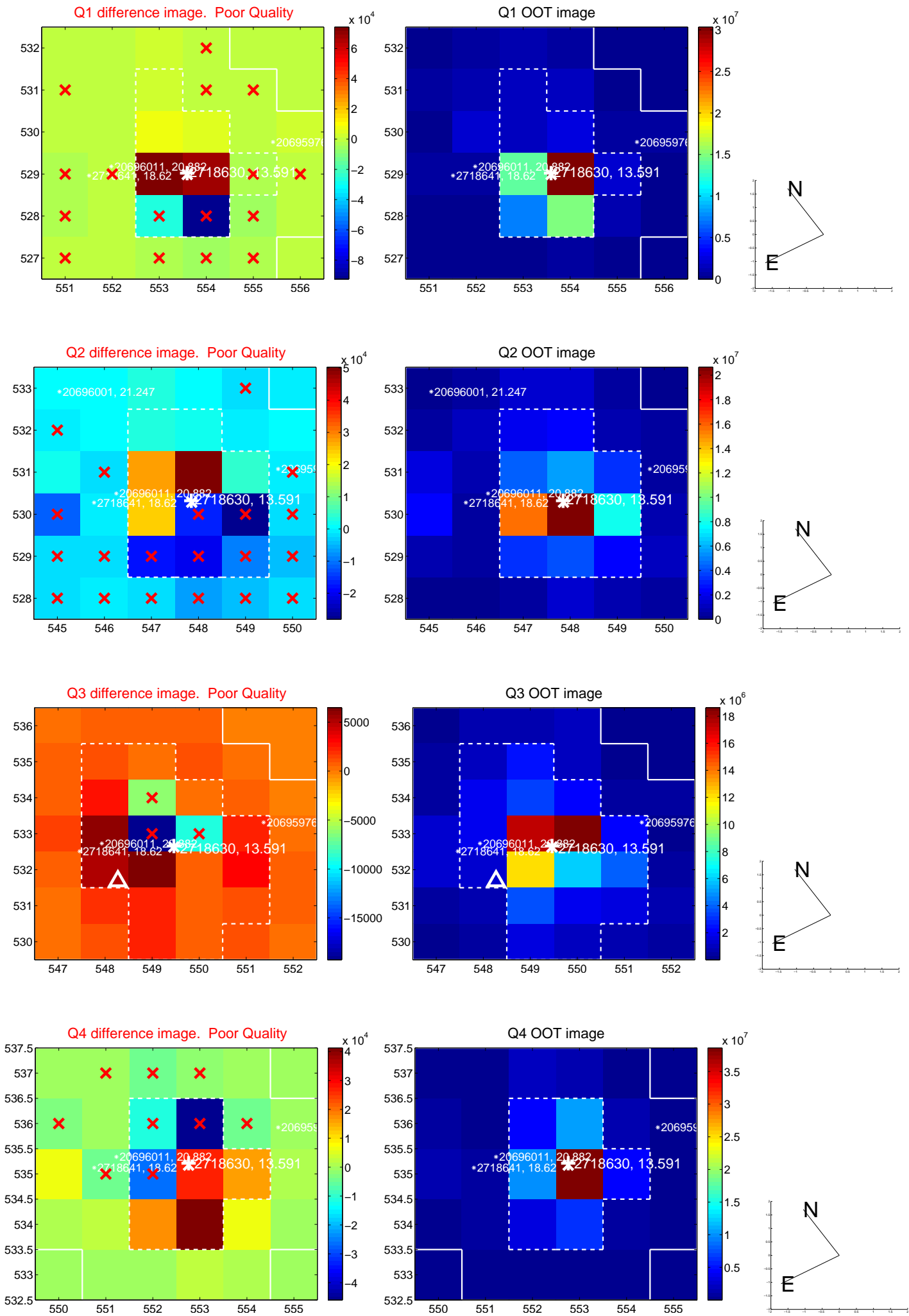
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.013 ± 1.187	0.85	0.838 ± 1.388	0.570 ± 0.533
PRF-fit source offset from KIC position	1.009 ± 1.103	0.91	0.761 ± 1.385	0.663 ± 0.540
photometric centroid source offset	0.25 ± 0.15	1.65	-0.18 ± 0.14	0.17 ± 0.16

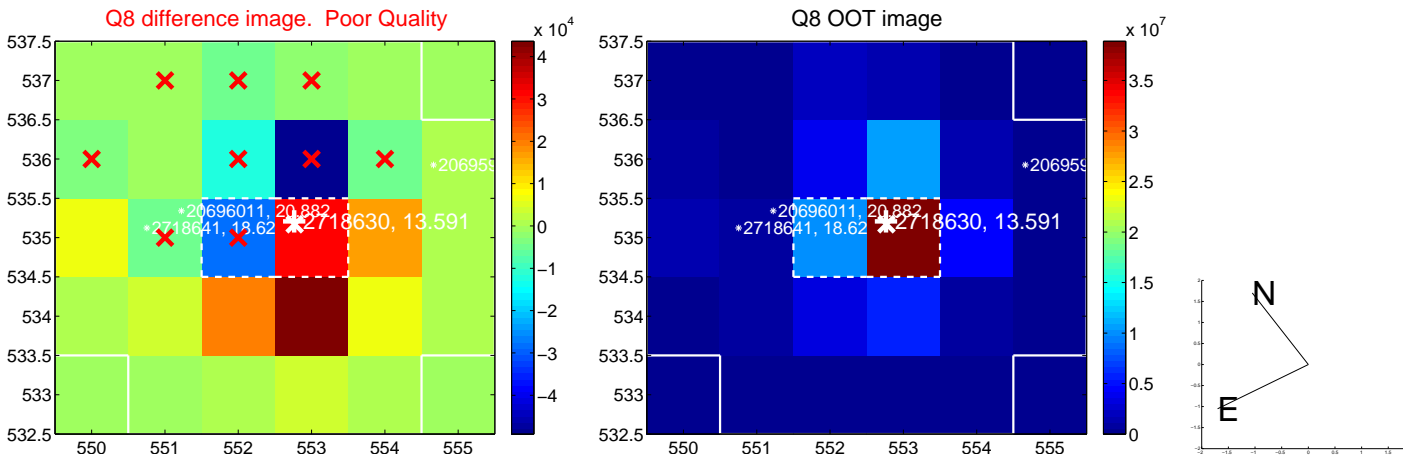
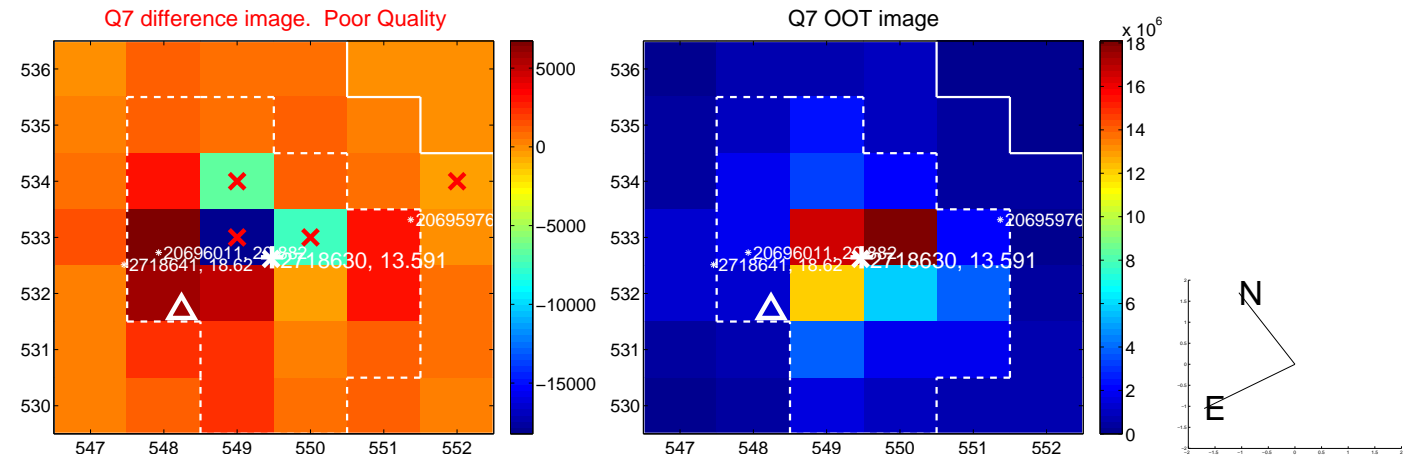
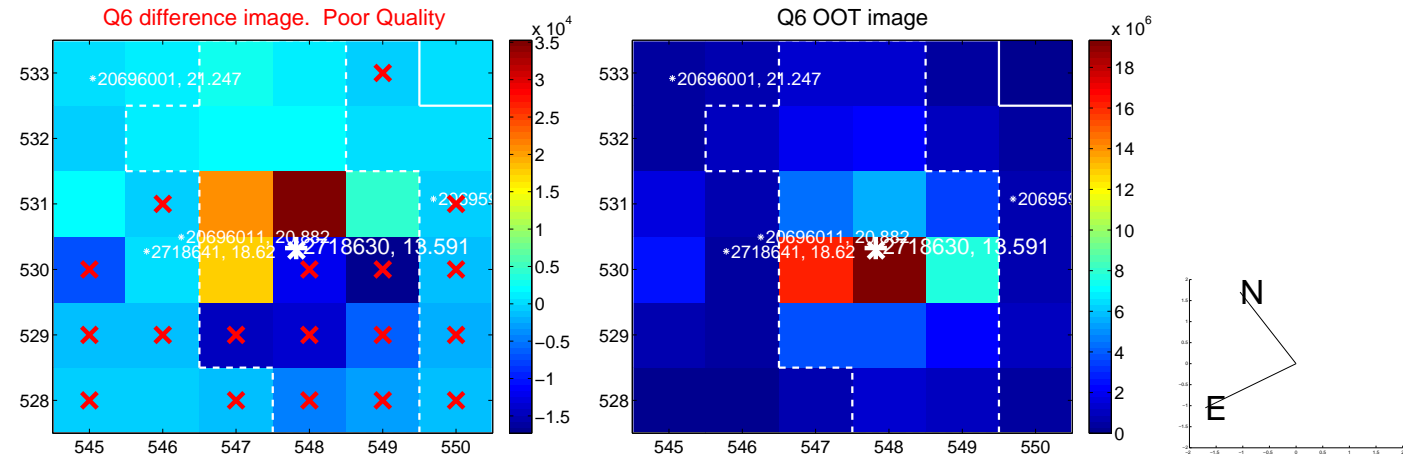
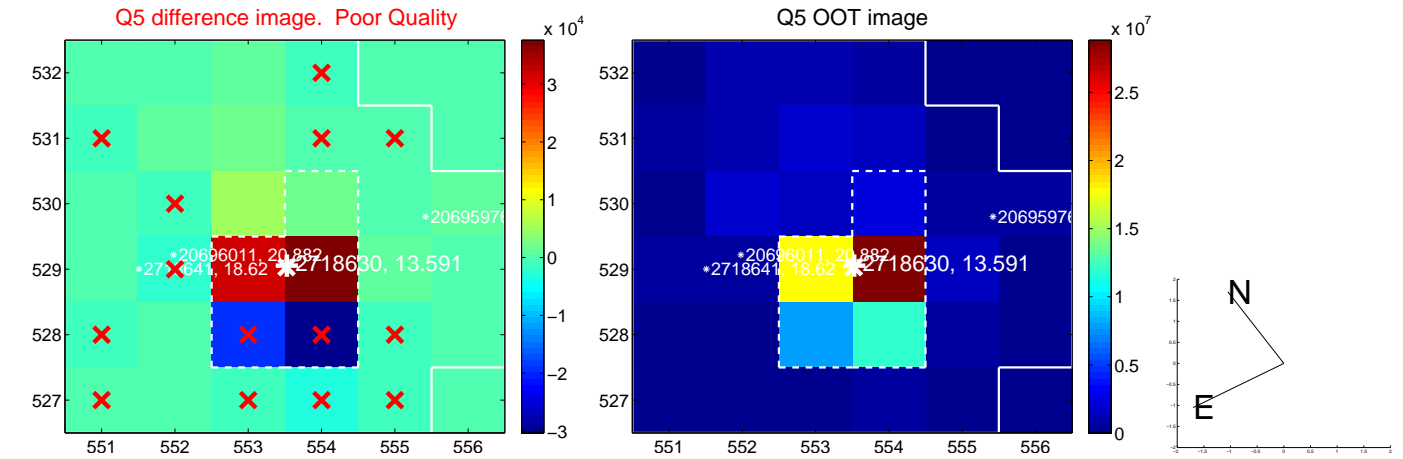


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

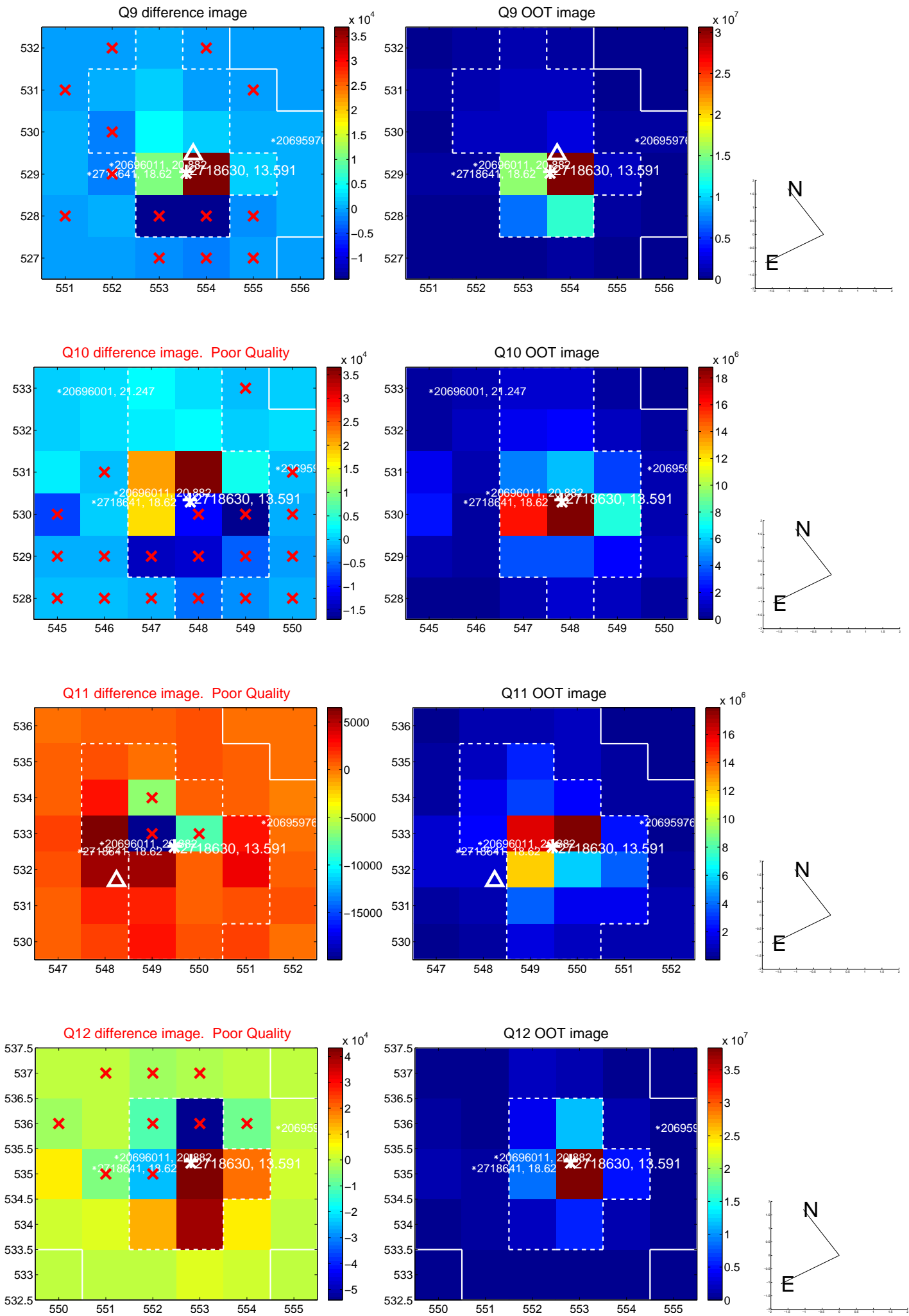
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



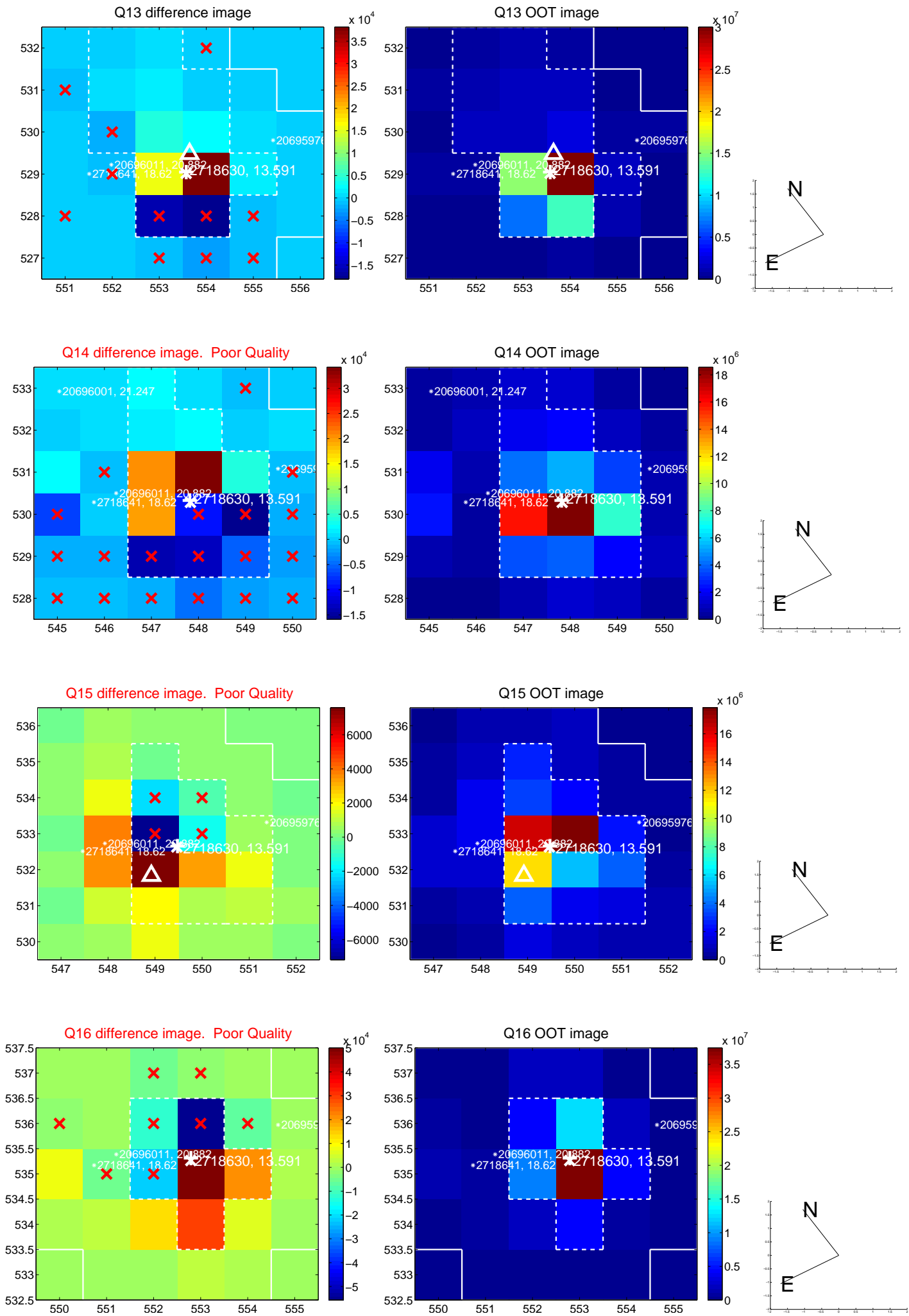
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



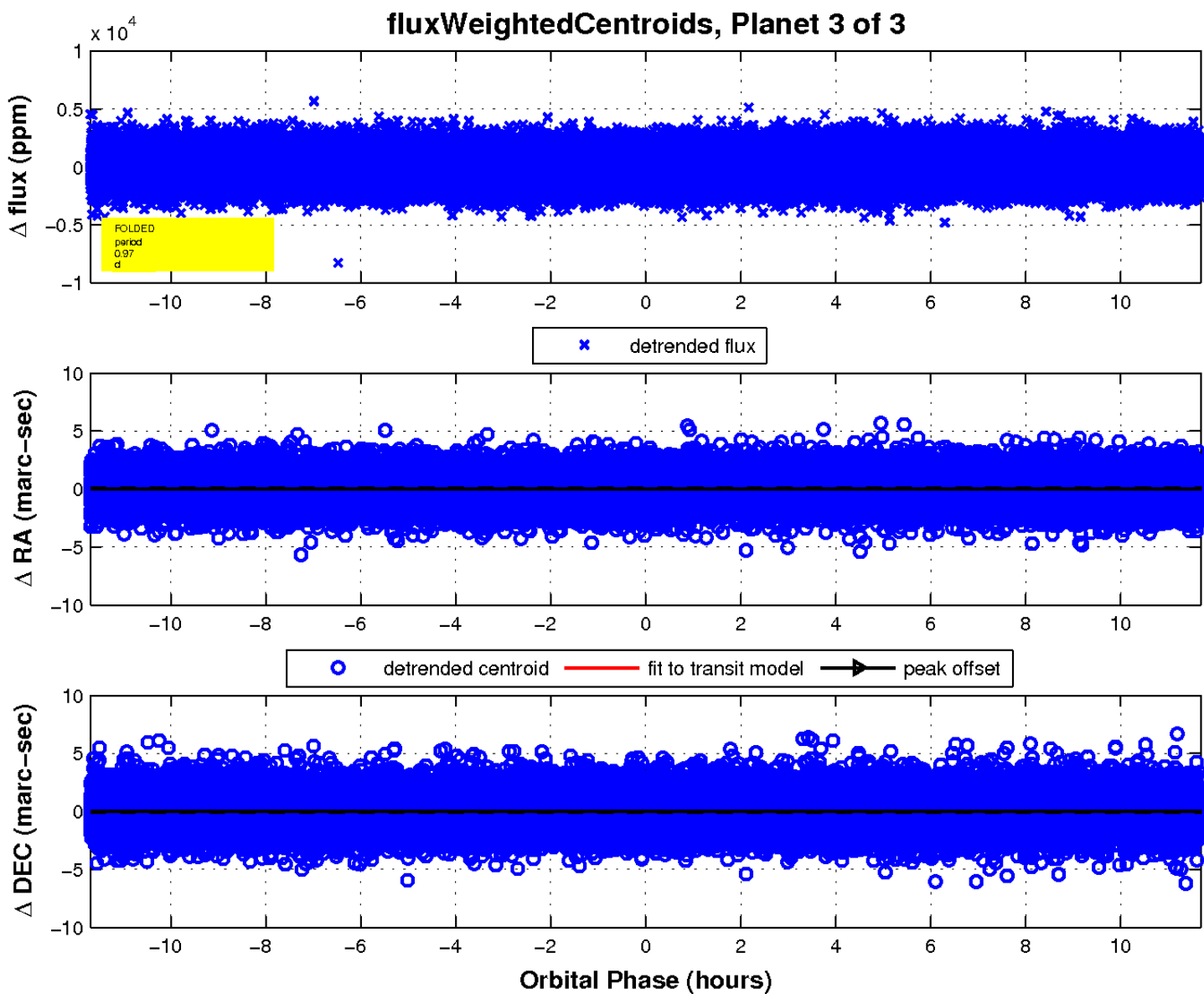
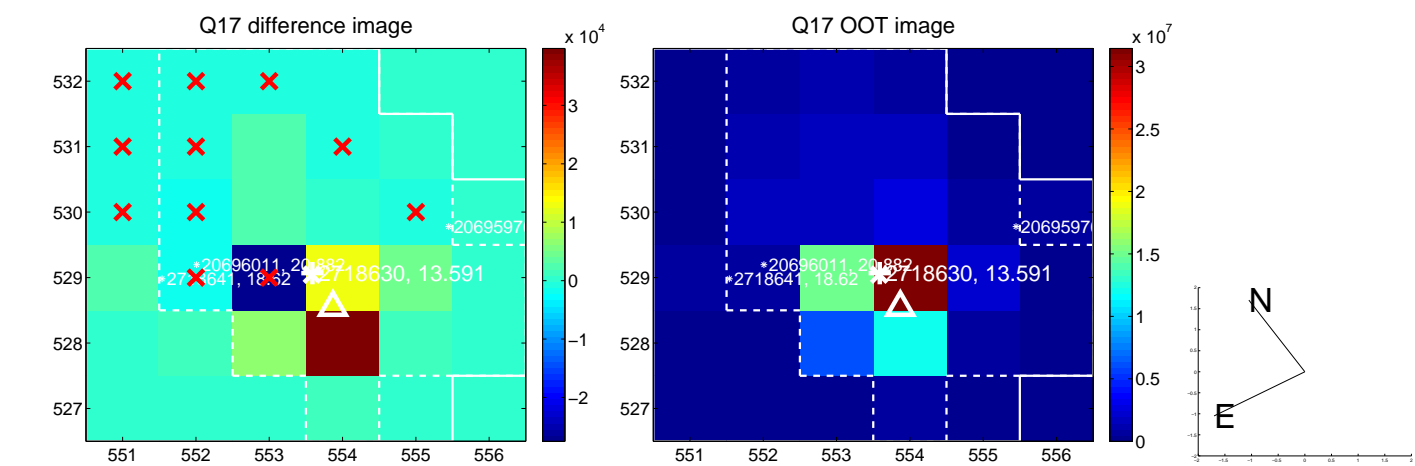
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

