

KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

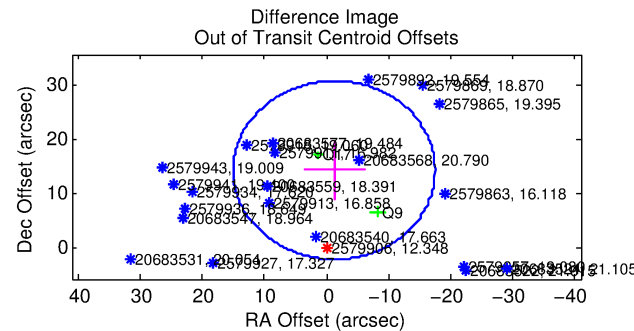
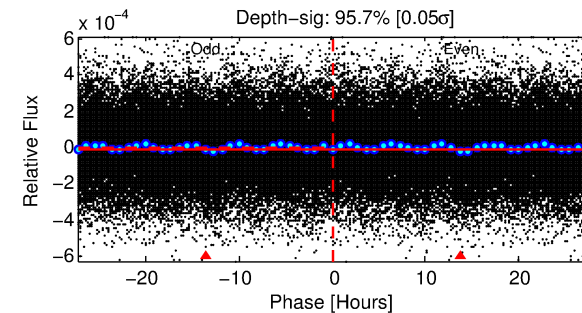
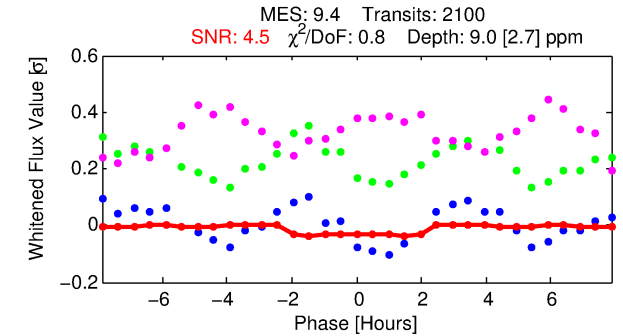
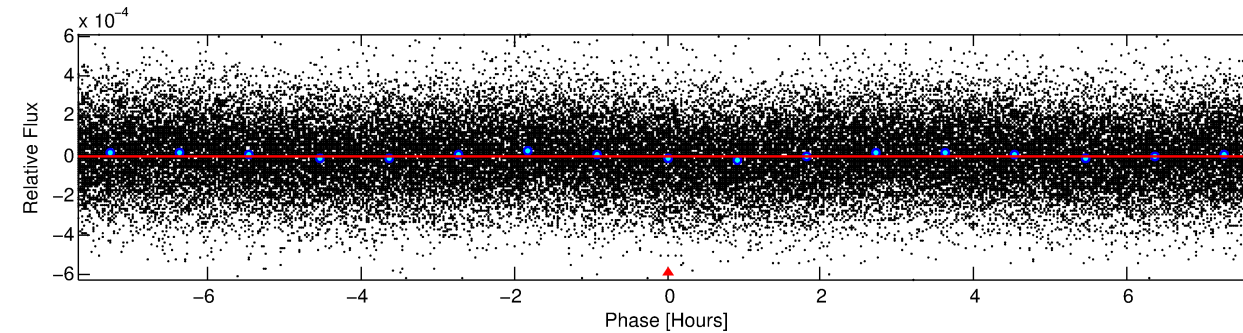
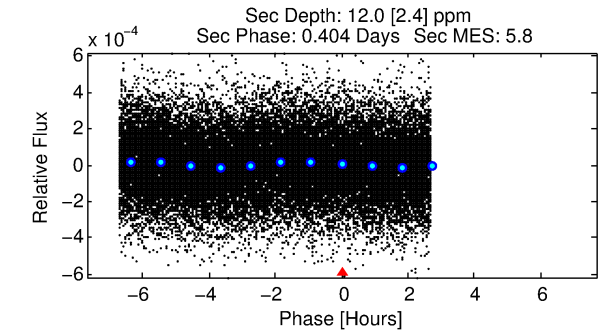
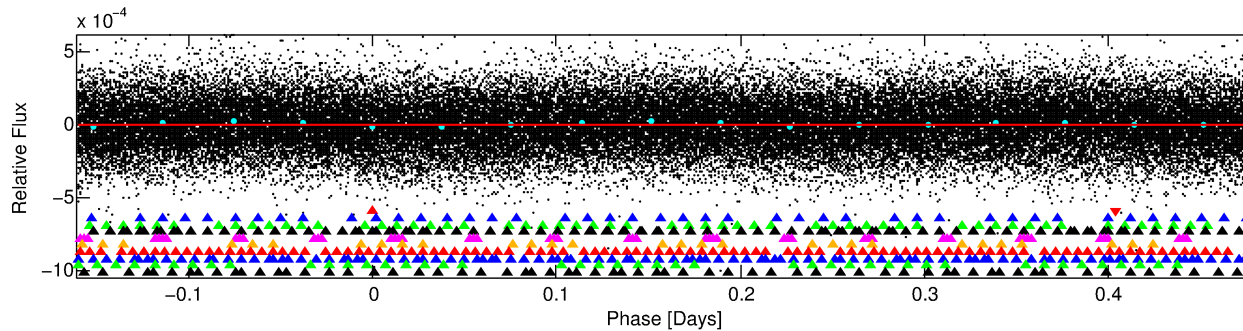
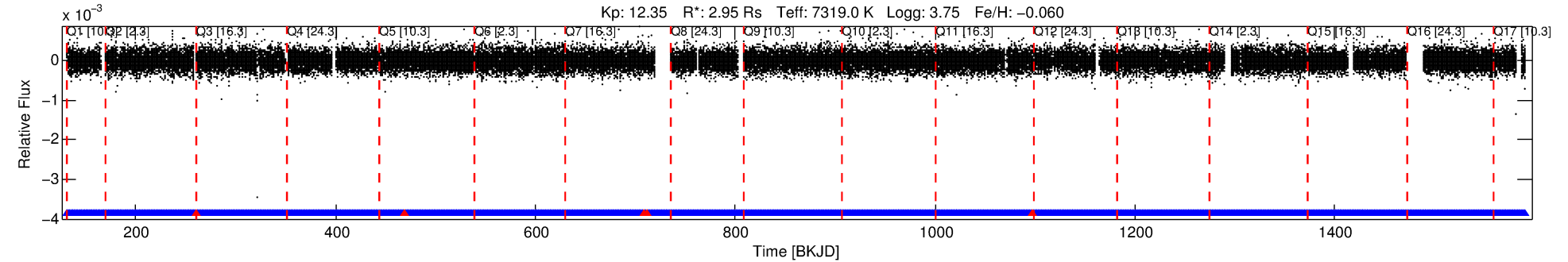
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-01

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 1 of 10 Period: 0.641 d



DV Fit Results:

Period = 0.64076 [0.00002] d
Epoch = 131.5262 [0.0066] BKJD
Rp/R* = 0.0028 [0.0036]
a/R* = 1.24 [3.32]
b = 0.24 [30.83]
Seff = 71849.04 [52030.05]
Teq = 4175 [756] K
Rp = 0.90 [1.21] Re
a = 0.0177 [0.0077] AU
Ag = 2.55 [6.76] [0.23σ]
Teffp = 8155 [5225] K [0.75σ]

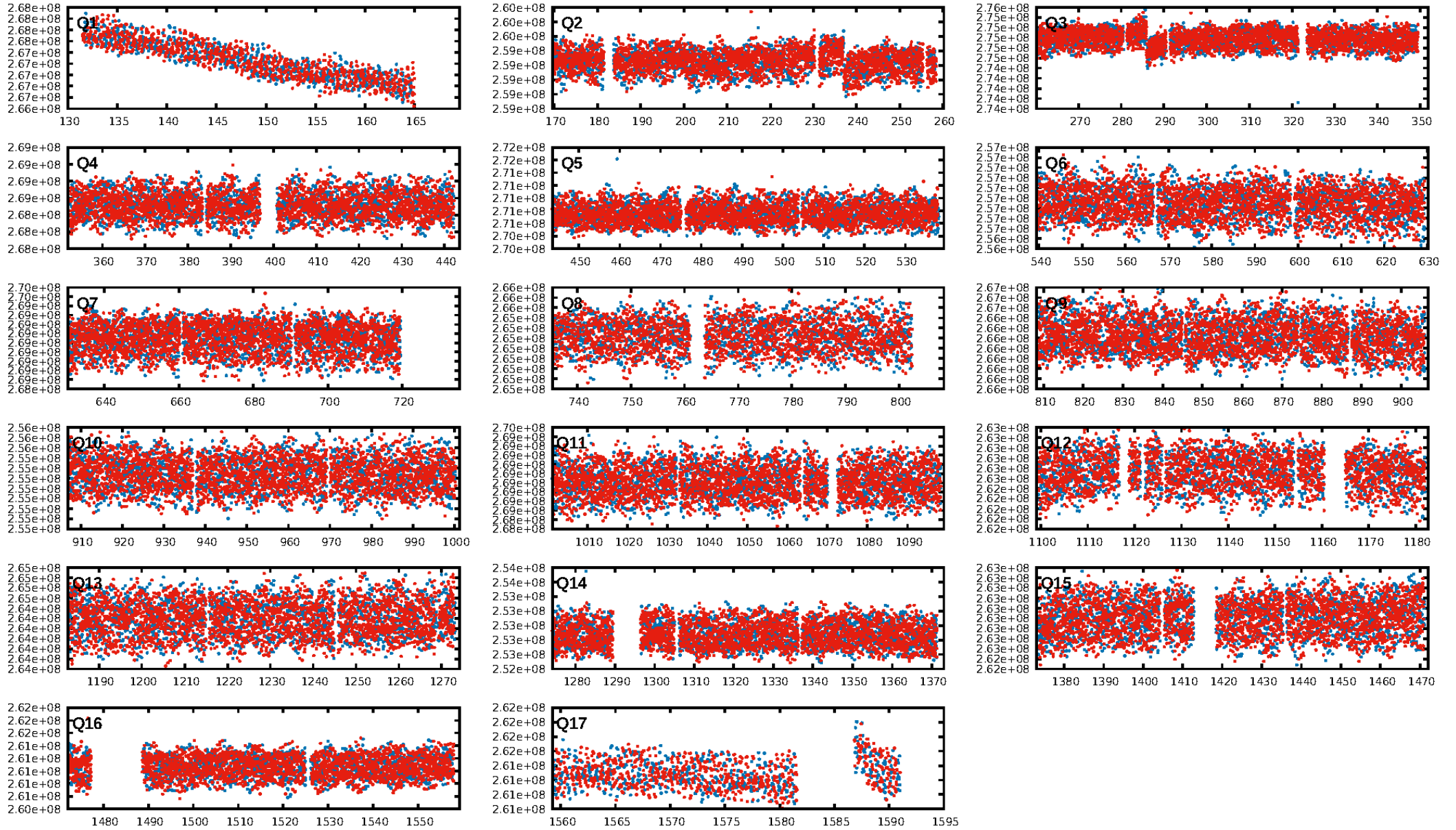
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [63.90σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2001/2006]
GhostDiagnostic-chr: -2.399
Centroid-sig: N/A
Centroid-so: 1.269 arcsec [0.88σ]
OotOffset-rm: 14.400 arcsec [2.65σ]
KicOffset-rm: 14.445 arcsec [2.67σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

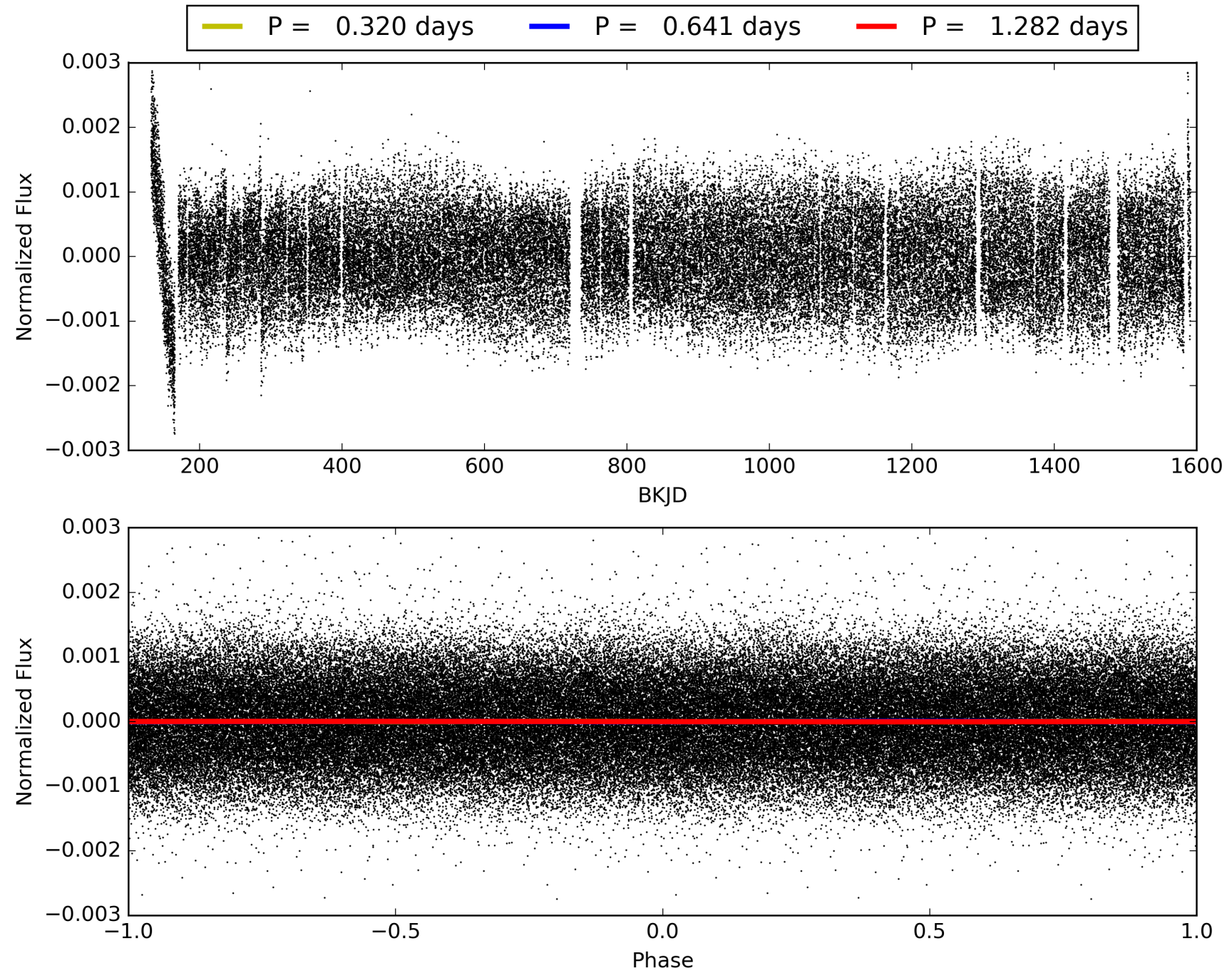
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:13 Z

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

TCE 002579906-01, PDC Light Curves

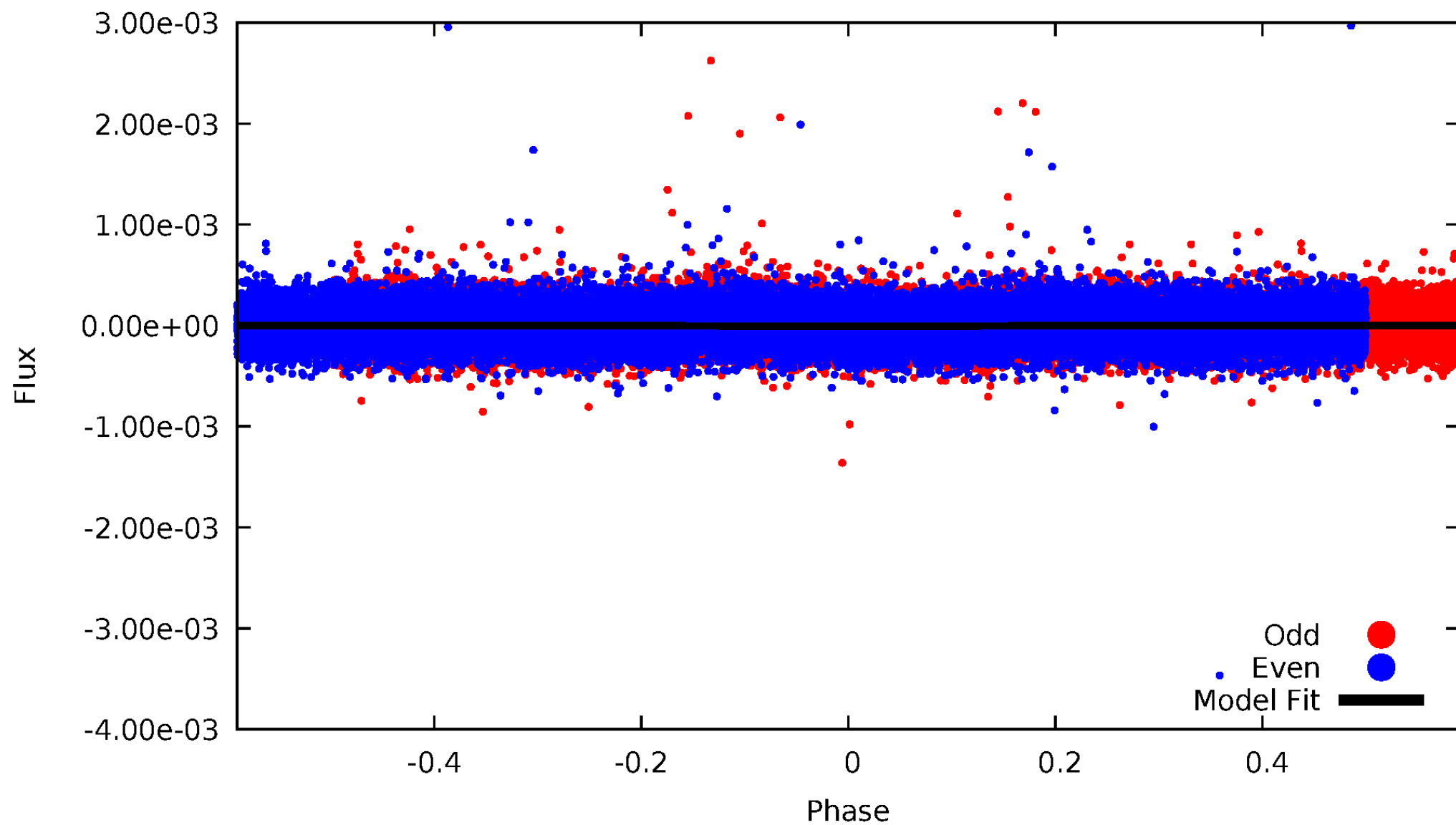


TCE 002579906-01



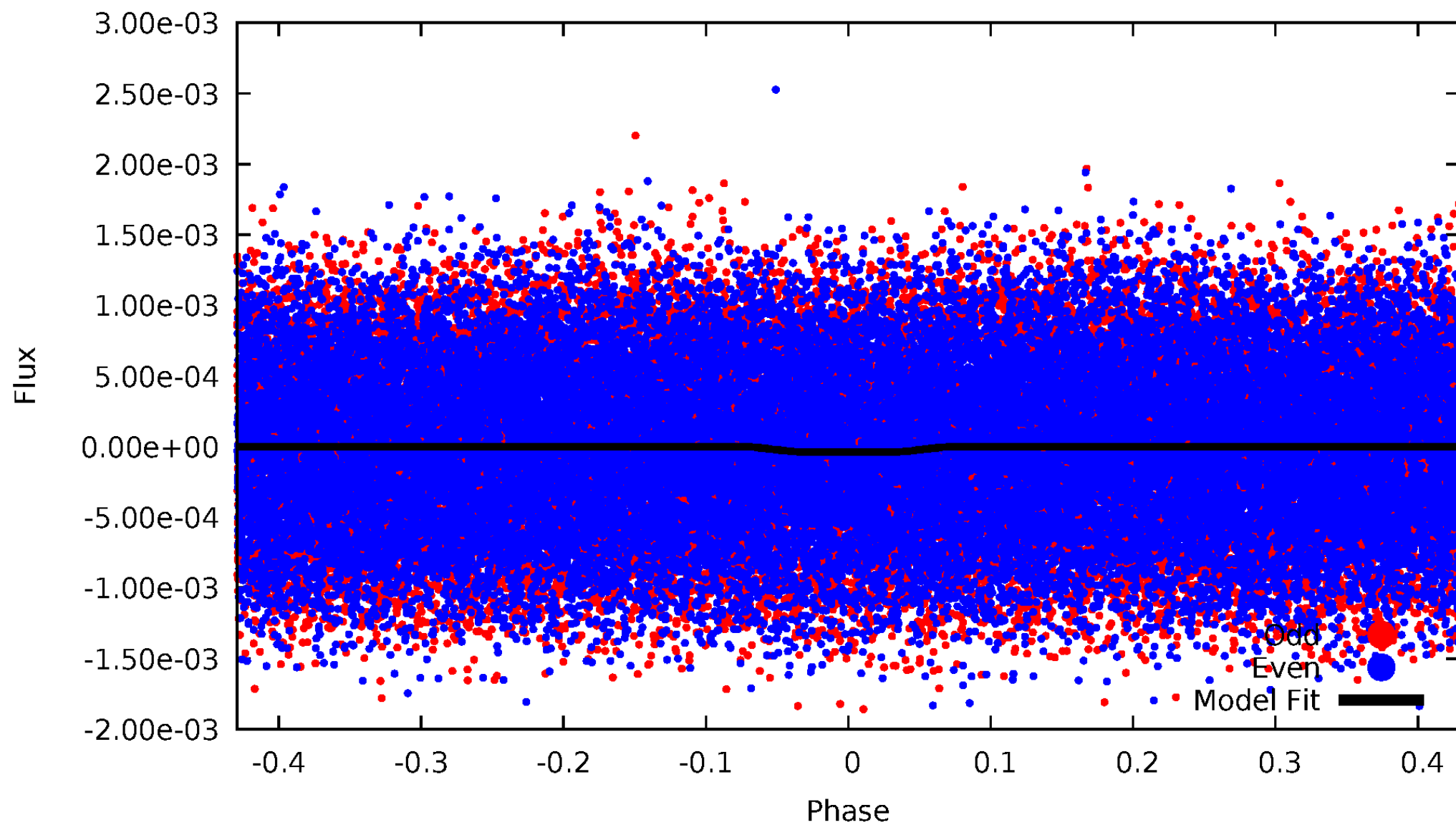
DV Odd/Even

TCE 002579906-01



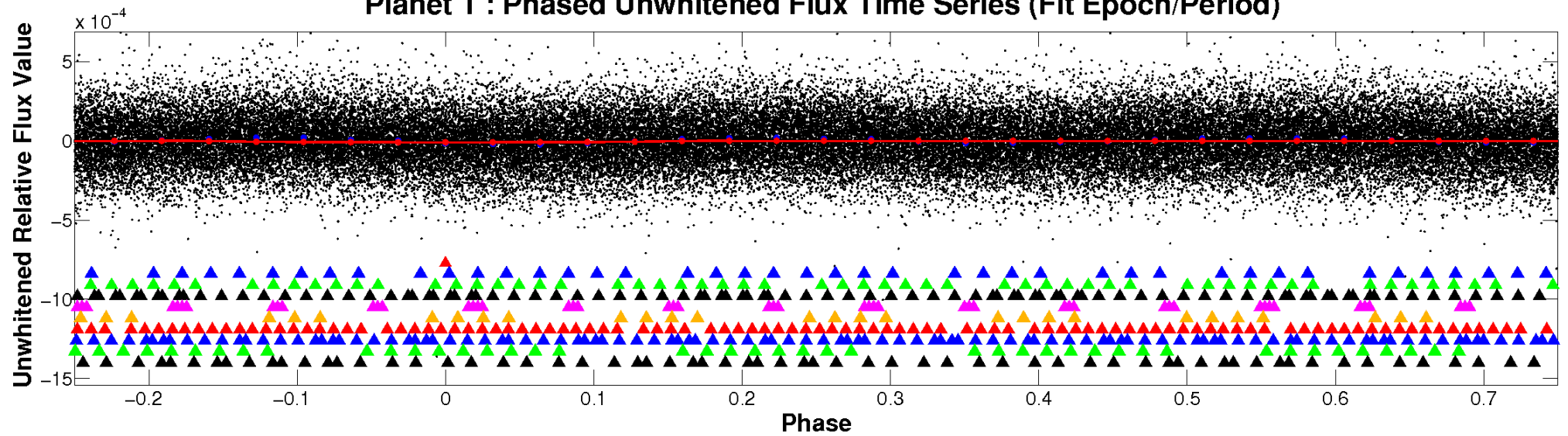
ALT Odd/Even

TCE 002579906-01

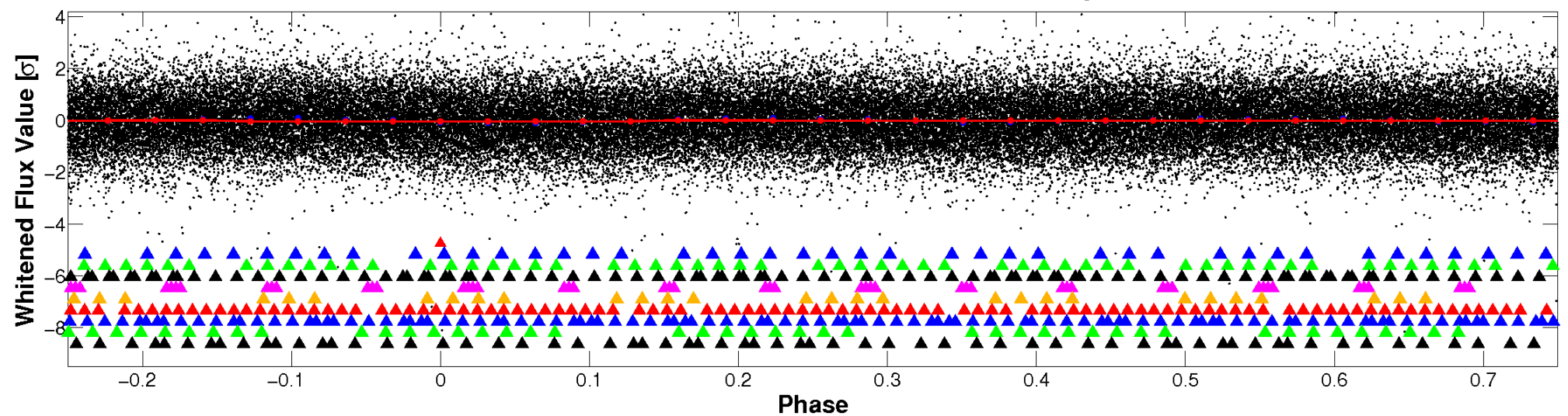


Non-Whitened Vs. Whitened Light Curve

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

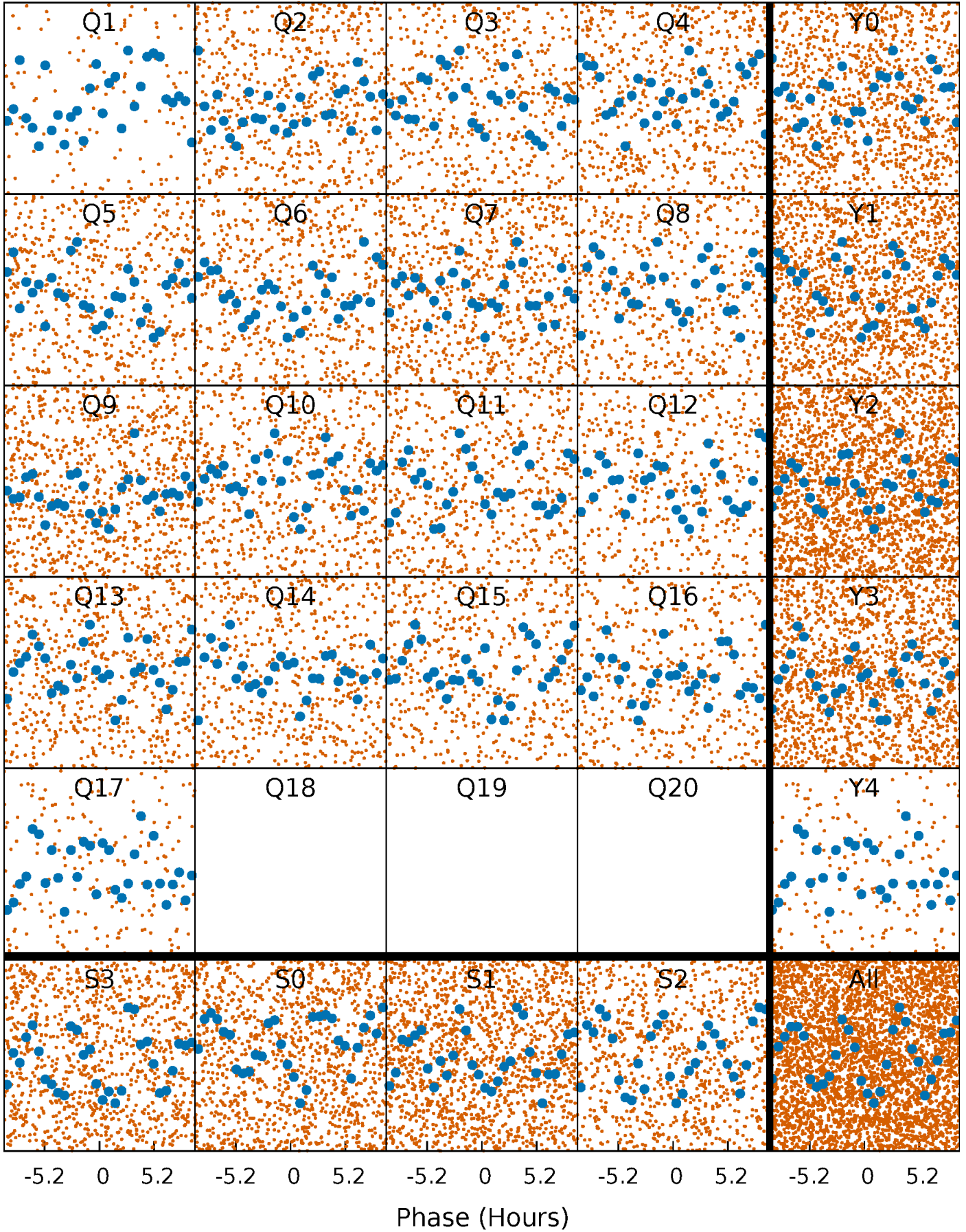


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



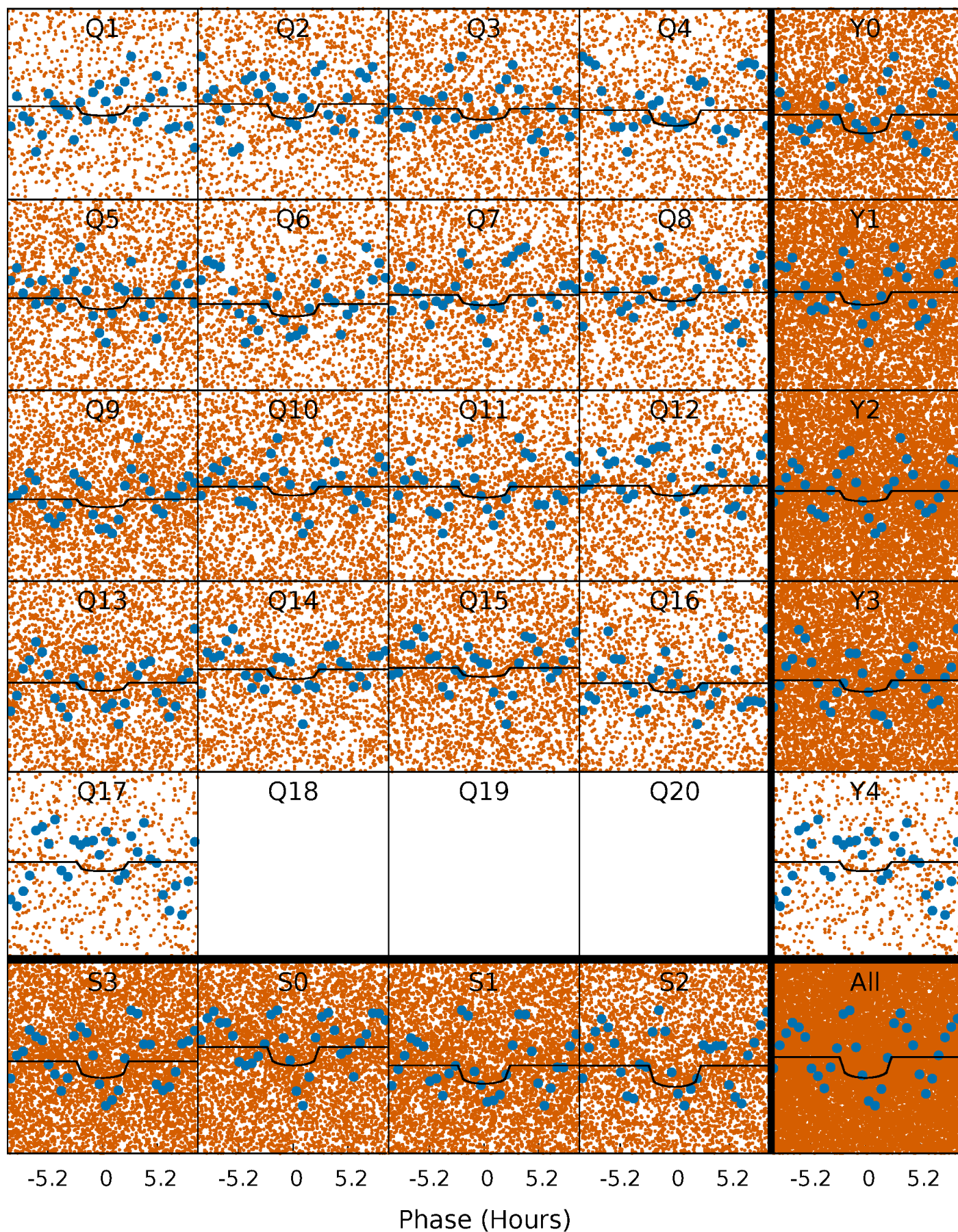
PDC Quarter-Phased Transit Curves

TCE 002579906-01 P= 0.640759 Days $T_0=131.526180$ (BKJD)



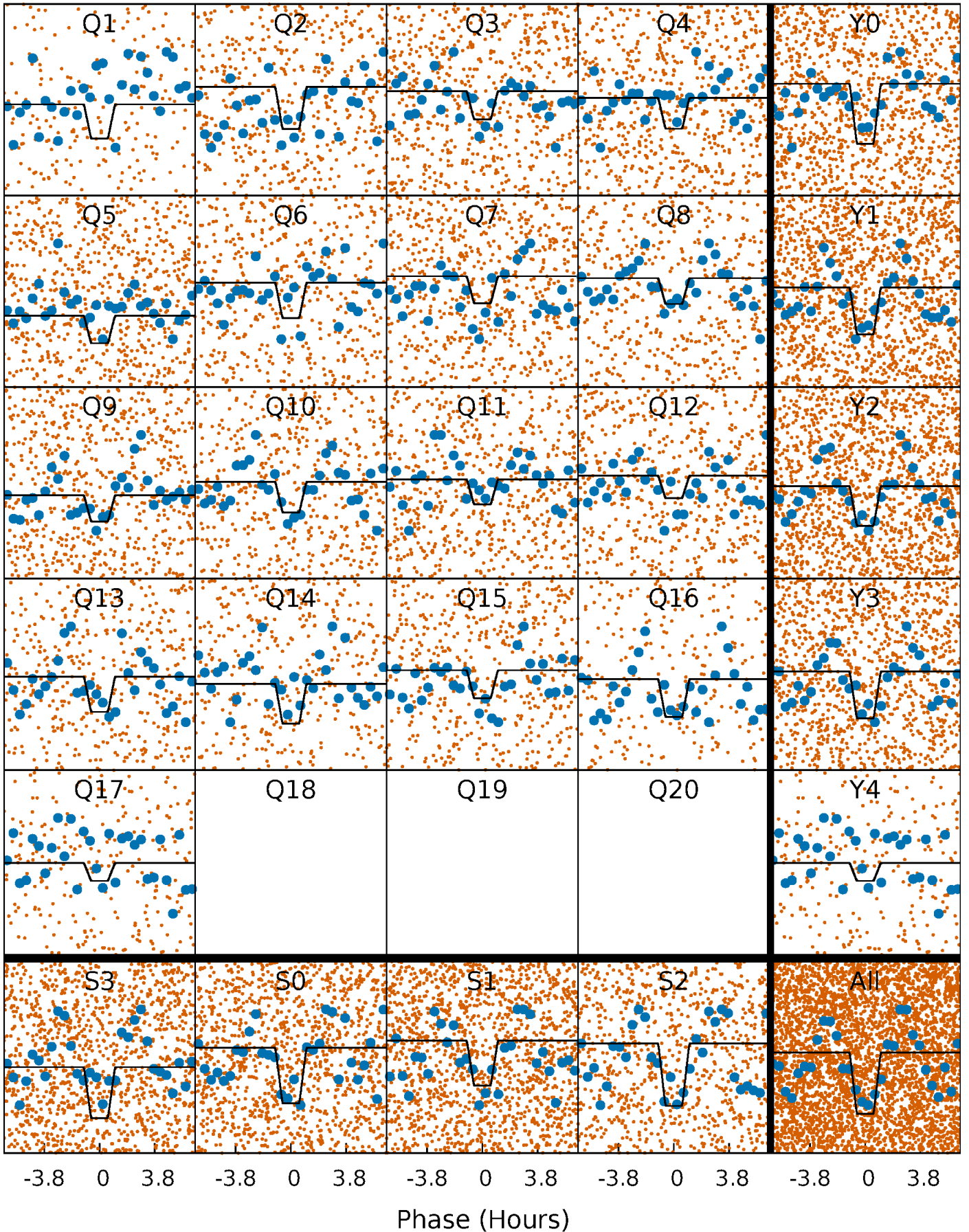
DV Quarter-Phased Transit Curves

TCE 002579906-01 P= 0.640759 Days $T_0=131.526180$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

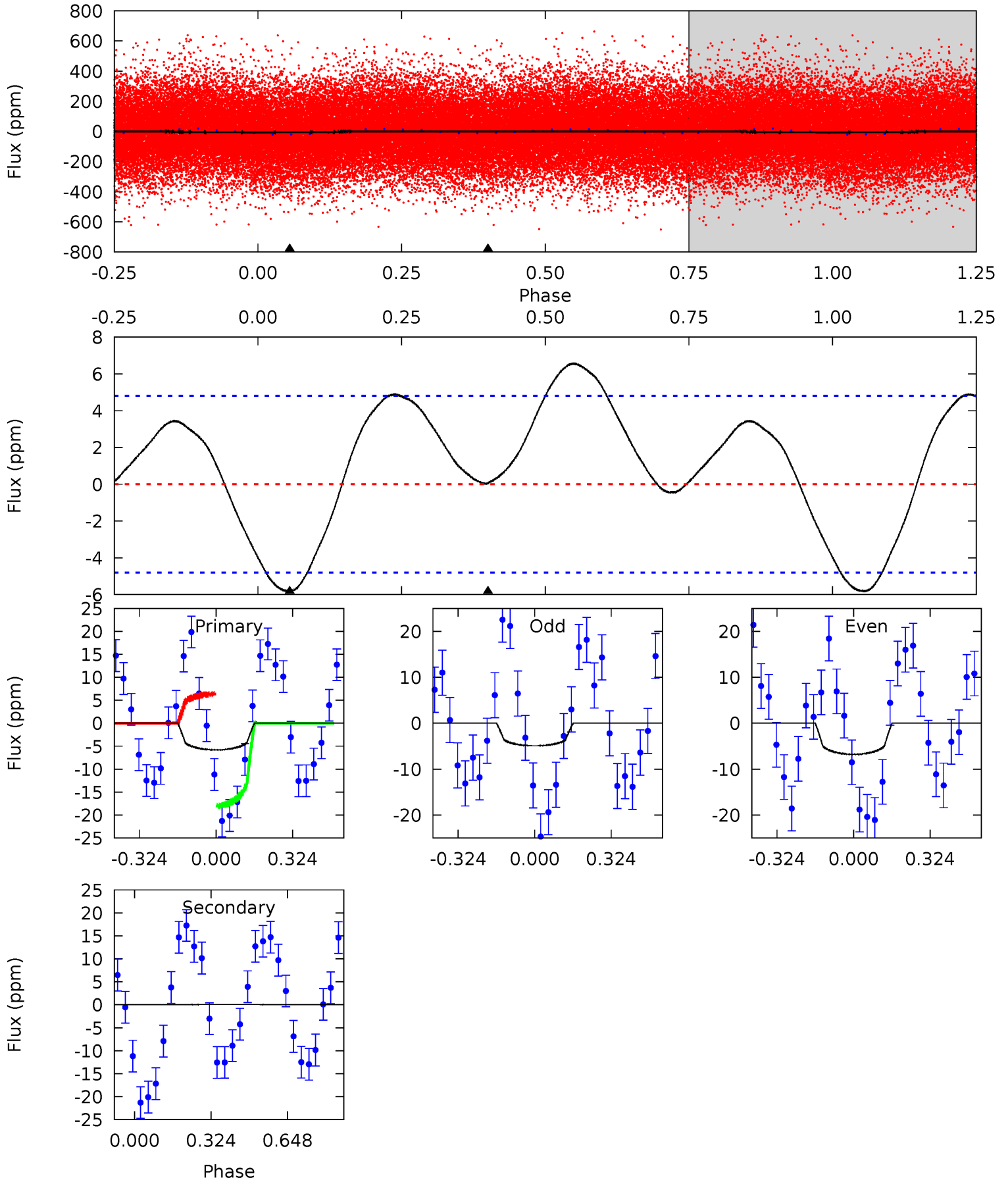
TCE 002579906-01 P= 0.640793 Days $T_0=131.517472$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-01, P = 0.640759 Days, E = 130.885421 Days

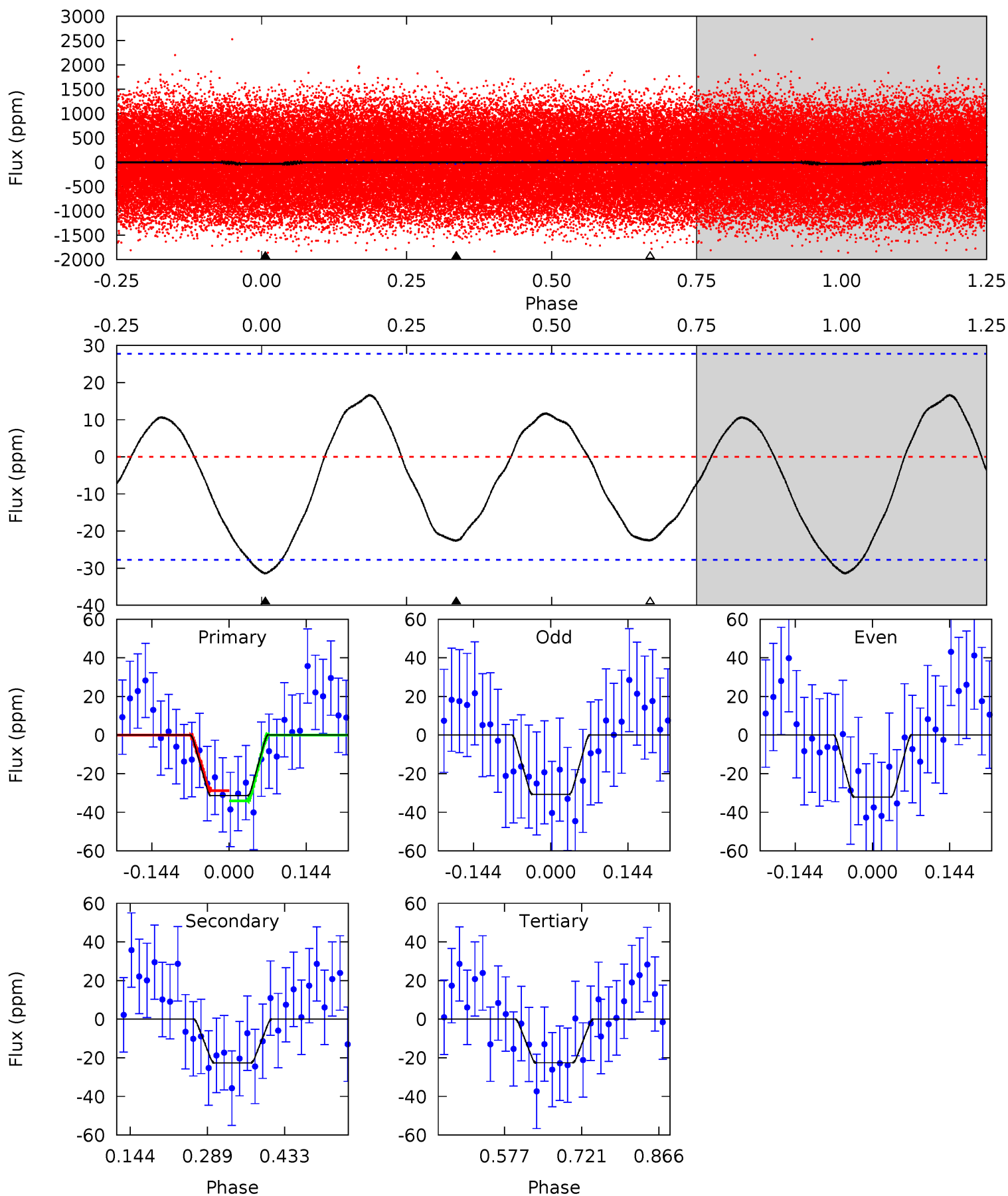
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.21	-0.06	0	0	4.31	0.99	0.40	5.21	5.21	-0.06	-0.06	0.84	0.90	0.53	5.26



Alt Model-Shift Uniqueness Test

002579906-01, P = 0.640793 Days, E = 130.876679 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.08	3.65	3.64	0	4.49	1.46	2.08	1.43	5.08	0.01	3.65	0.12	0.98	0.35	0.42



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1	$1.10^{+0.94}_{-0.71}$	5697^{+394}_{-657}	-4750^{+1456}_{-663}	$-0.000^{+0.243}_{-0.264}$
Alt.	-23 ± 6	$1.78^{+1.13}_{-0.96}$	5637^{+433}_{-691}	5861^{+3885}_{-1972}	$1.212^{+4.737}_{-0.814}$

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 $A_{obs} \gg 1.0$

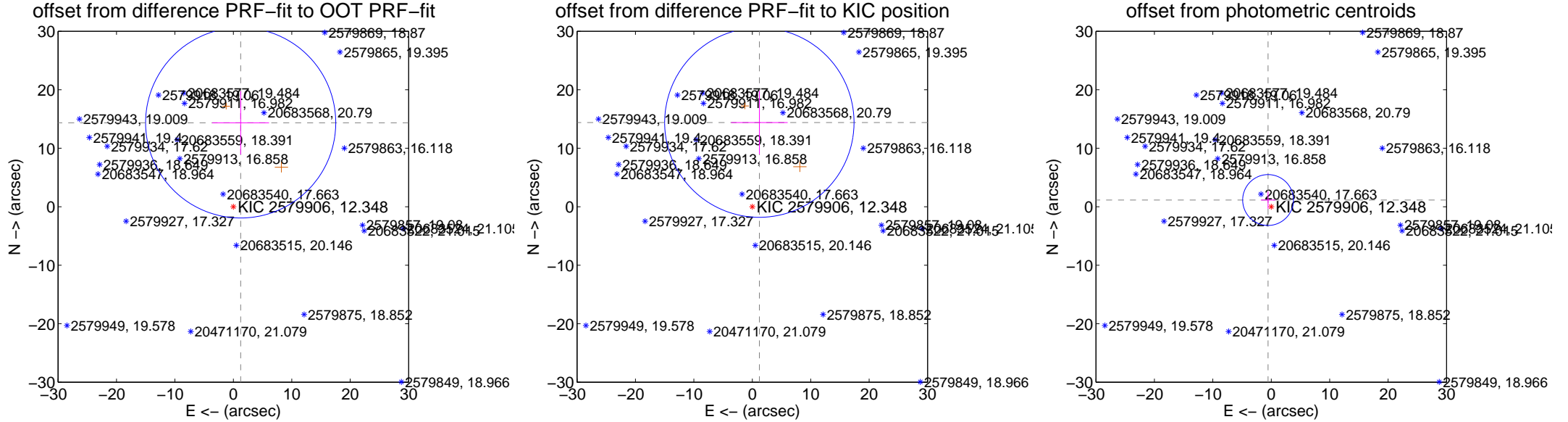
DV Centroid Data

Supplemental centroid analysis for 002579906-01. Kepler magnitude: 12.35. Transit SNR 4.47

There are 0 quarters with good PRF difference image offsets

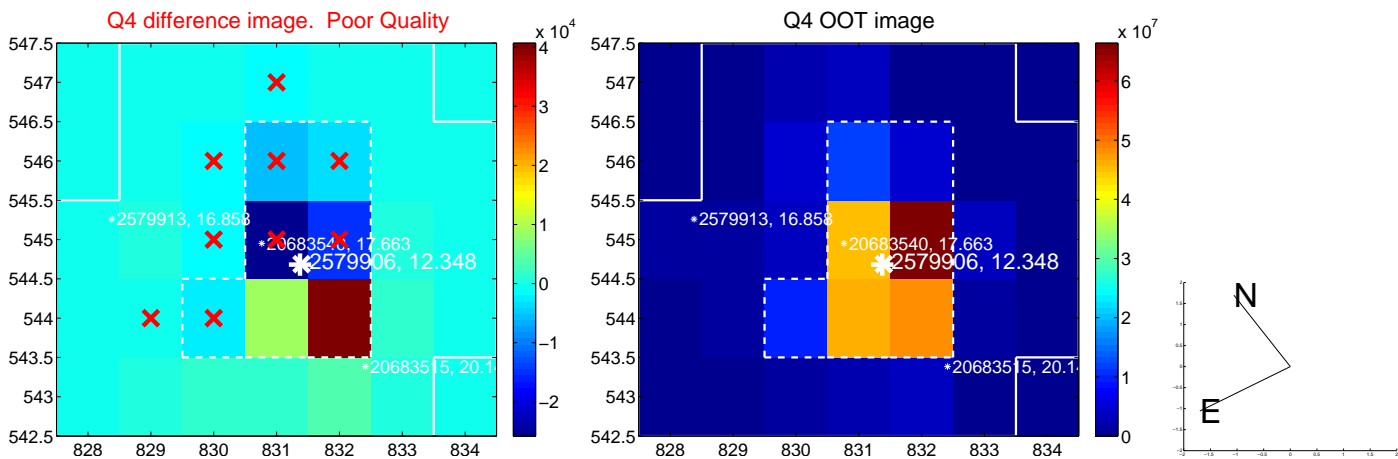
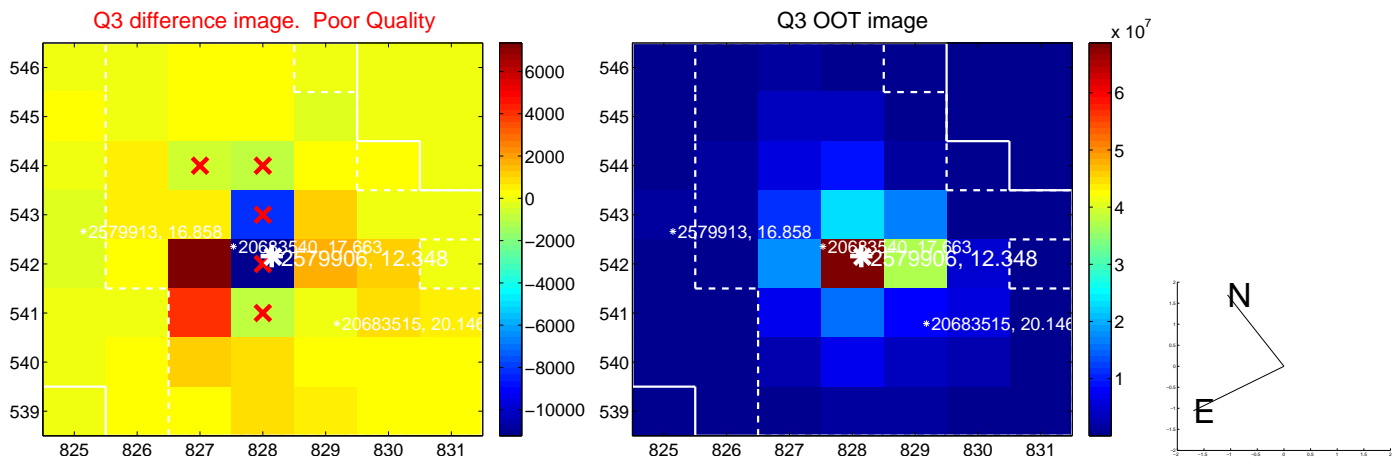
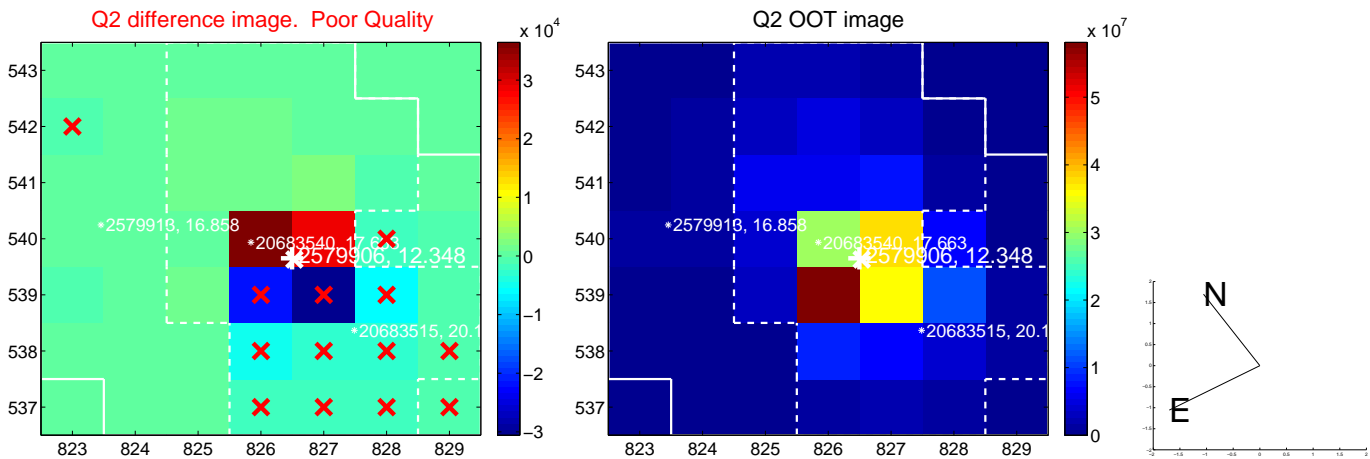
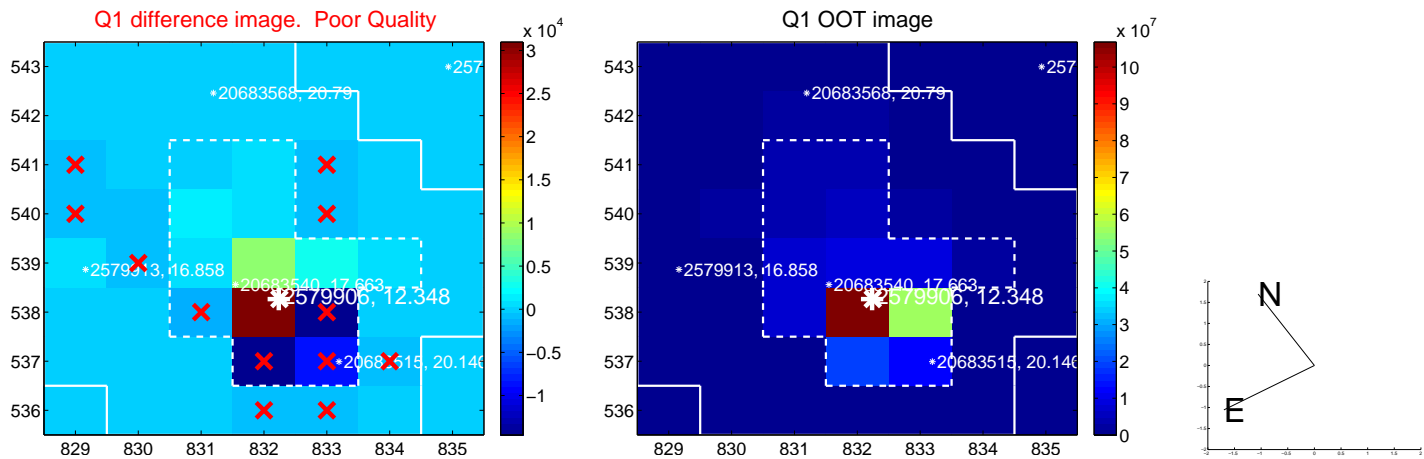
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	14.400 ± 5.424	2.65	-1.253 ± 4.866	14.345 ± 5.428
PRF-fit source offset from KIC position	14.445 ± 5.402	2.67	-1.207 ± 4.842	14.395 ± 5.405
photometric centroid source offset	1.27 ± 1.45	0.88	0.54 ± 1.23	1.15 ± 1.49

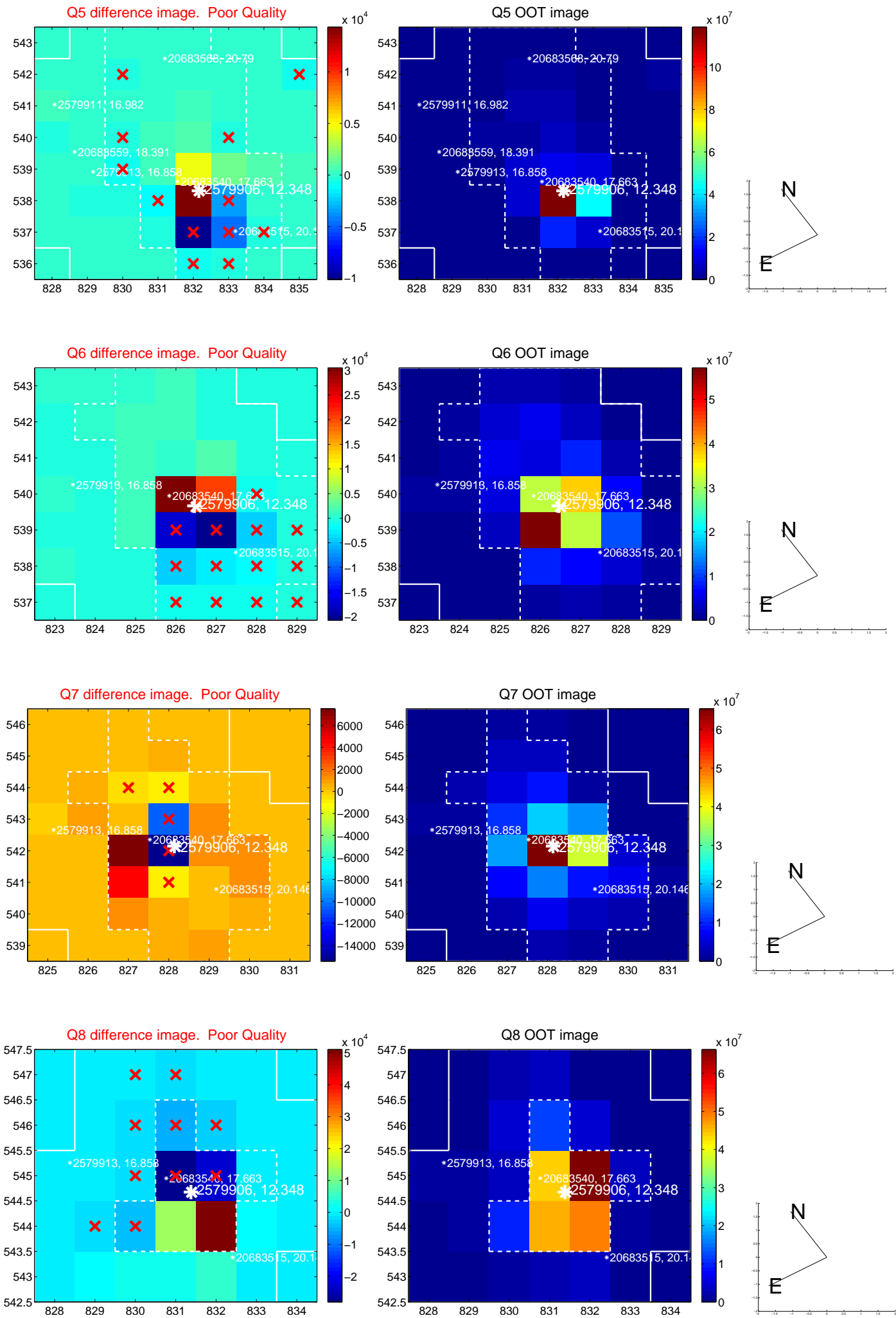


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

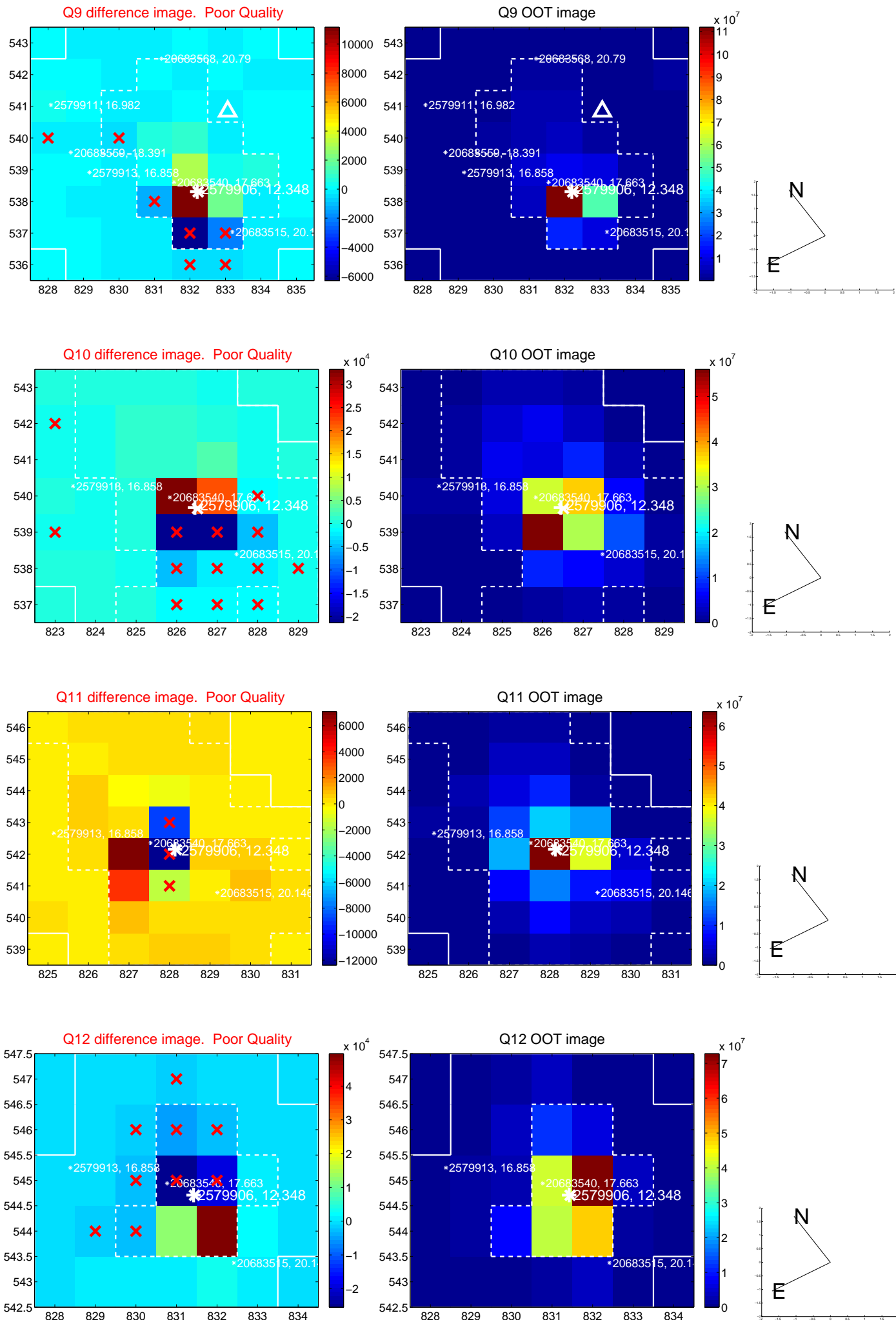
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



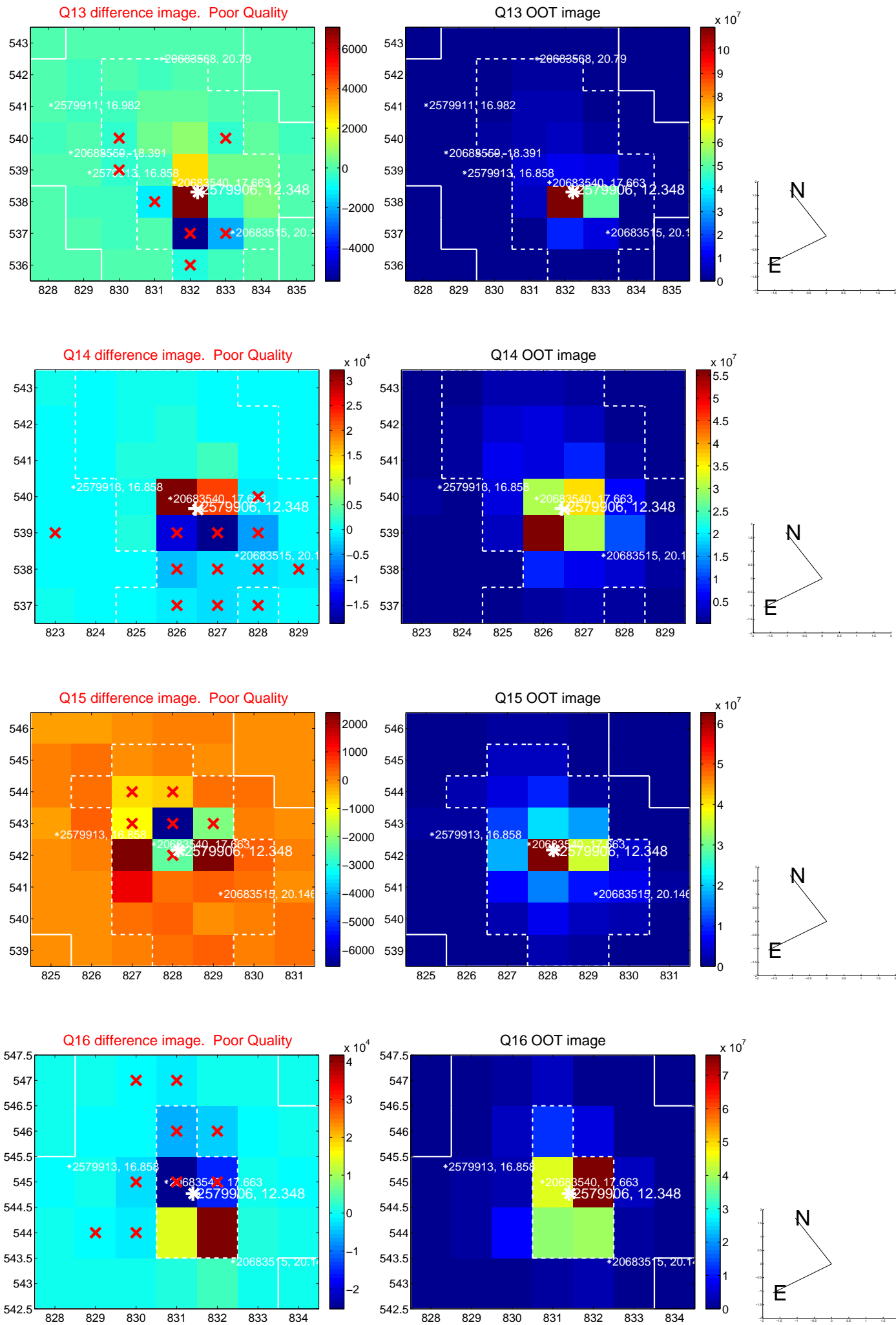
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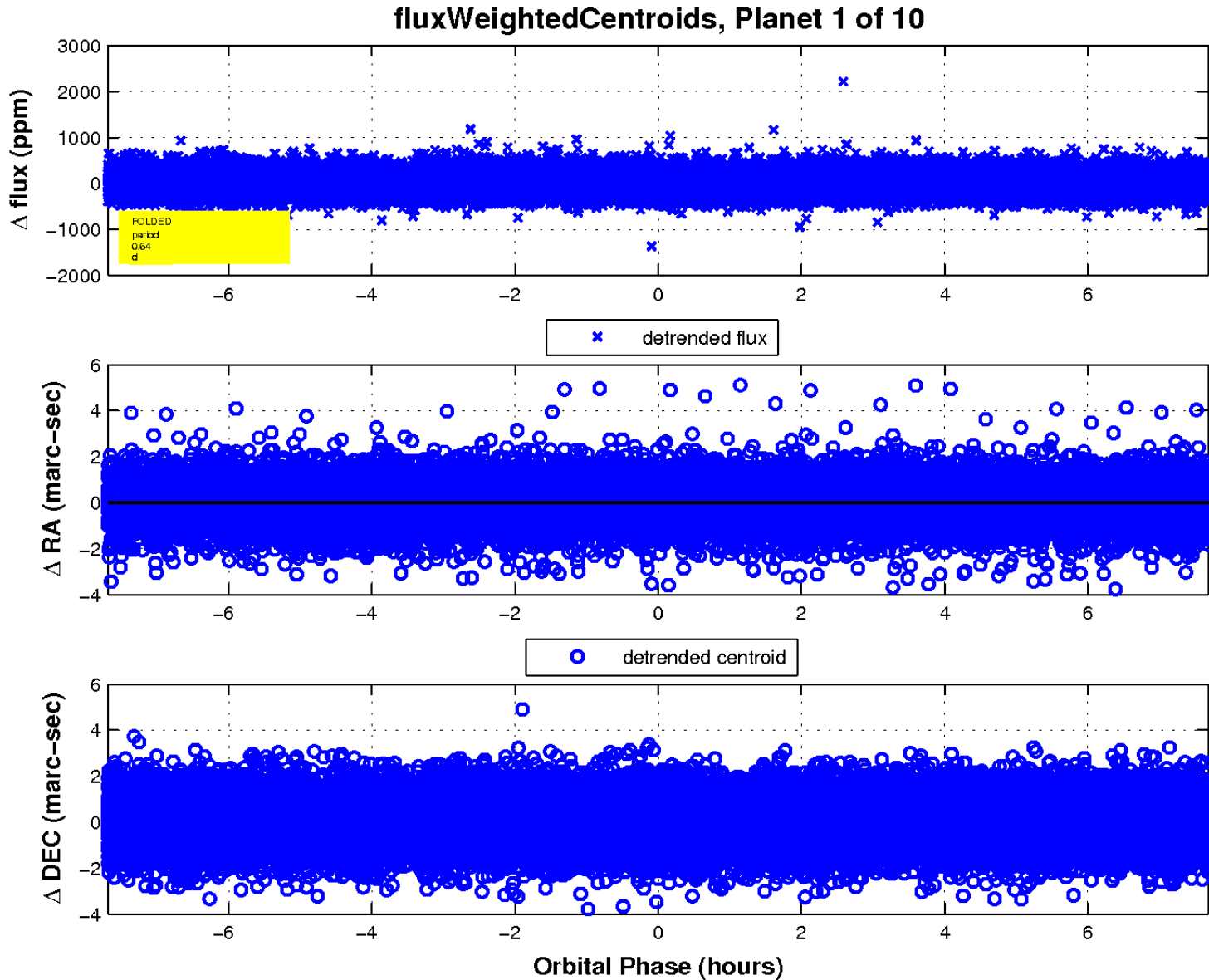
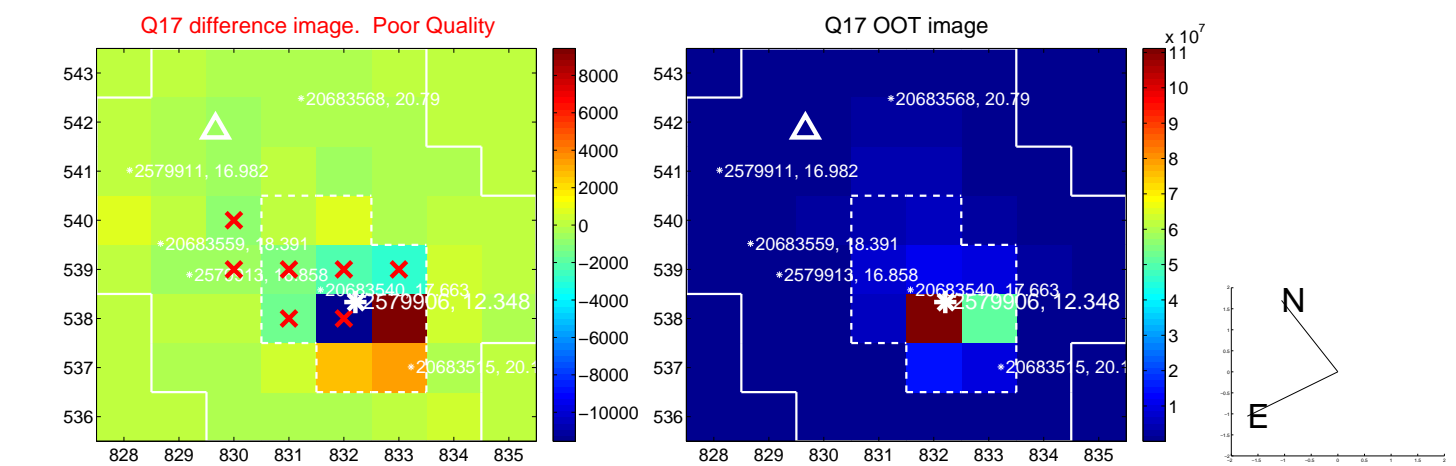
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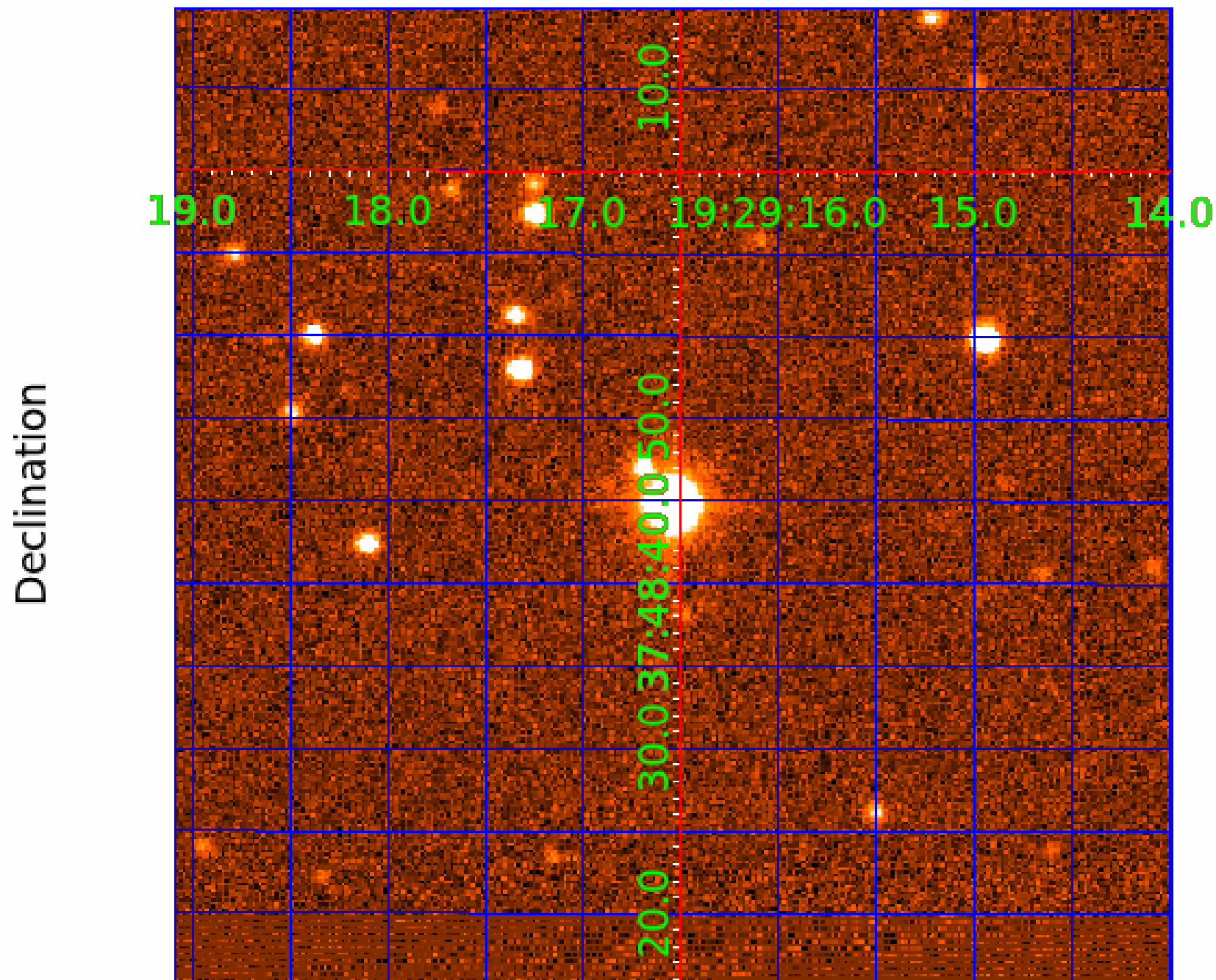
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 002579906

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

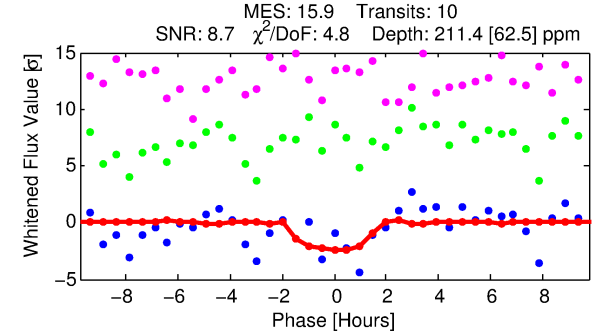
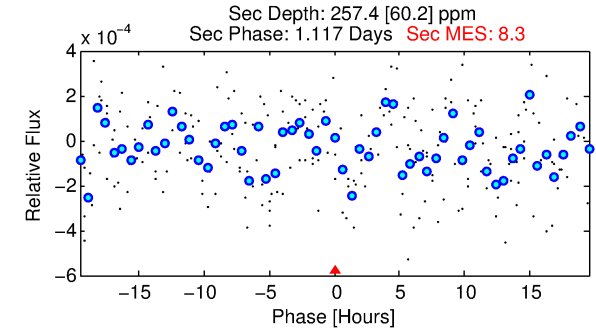
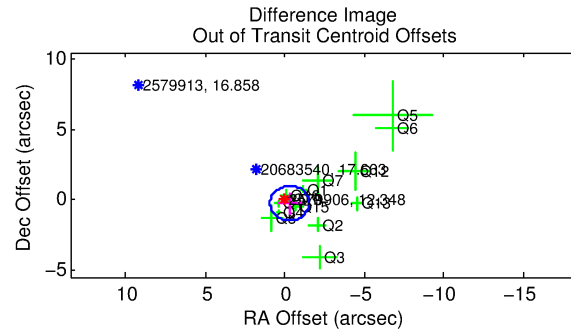
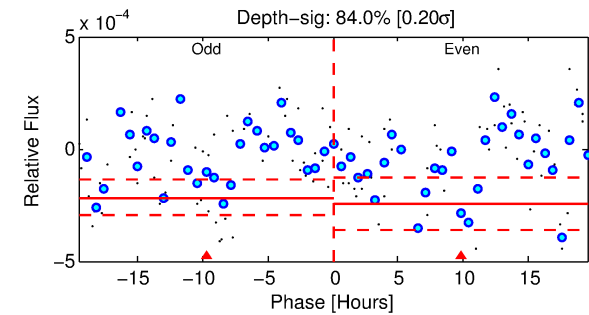
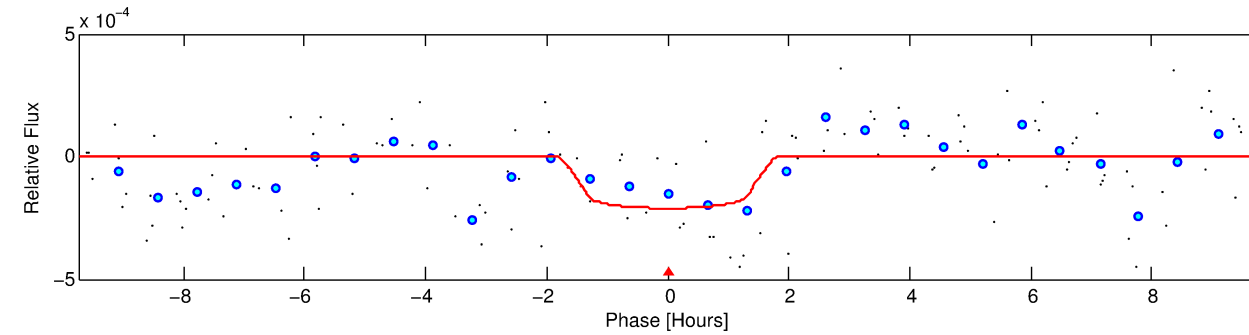
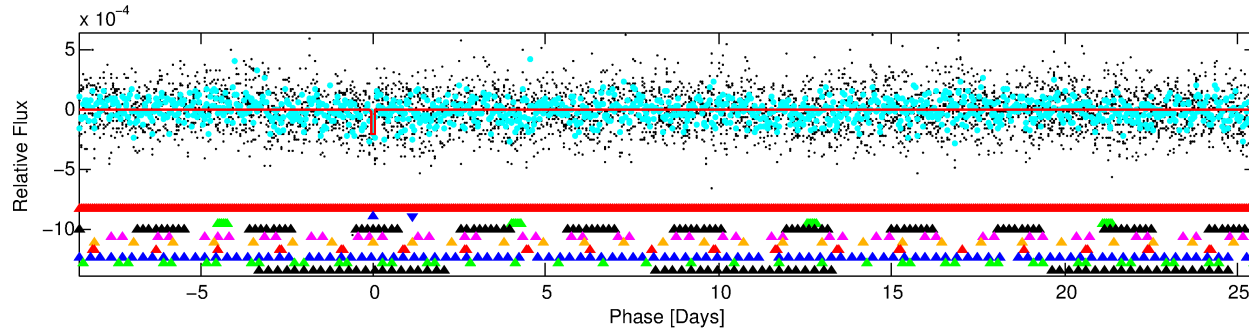
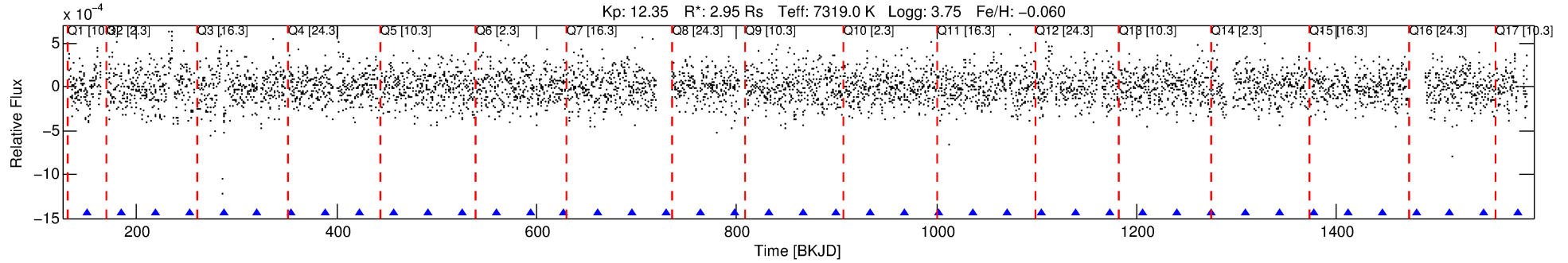
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-02

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 2 of 10 Period: 34.076 d



DV Fit Results:

Period = 34.07562 [0.00114] d
Epoch = 150.5445 [0.0258] BKJD
Rp/R* = 0.0151 [0.0205]
a/R* = 43.36 [368.59]
b = 0.86 [2.61]
Seff = 359.27 [260.17]
Teq = 1110 [201] K
Rp = 4.85 [6.93] Re
a = 0.2496 [0.1087] AU
Ag = 374.92 [1056.02] [0.35 σ]
Teffp = 7553 [5159] K [1.25 σ]

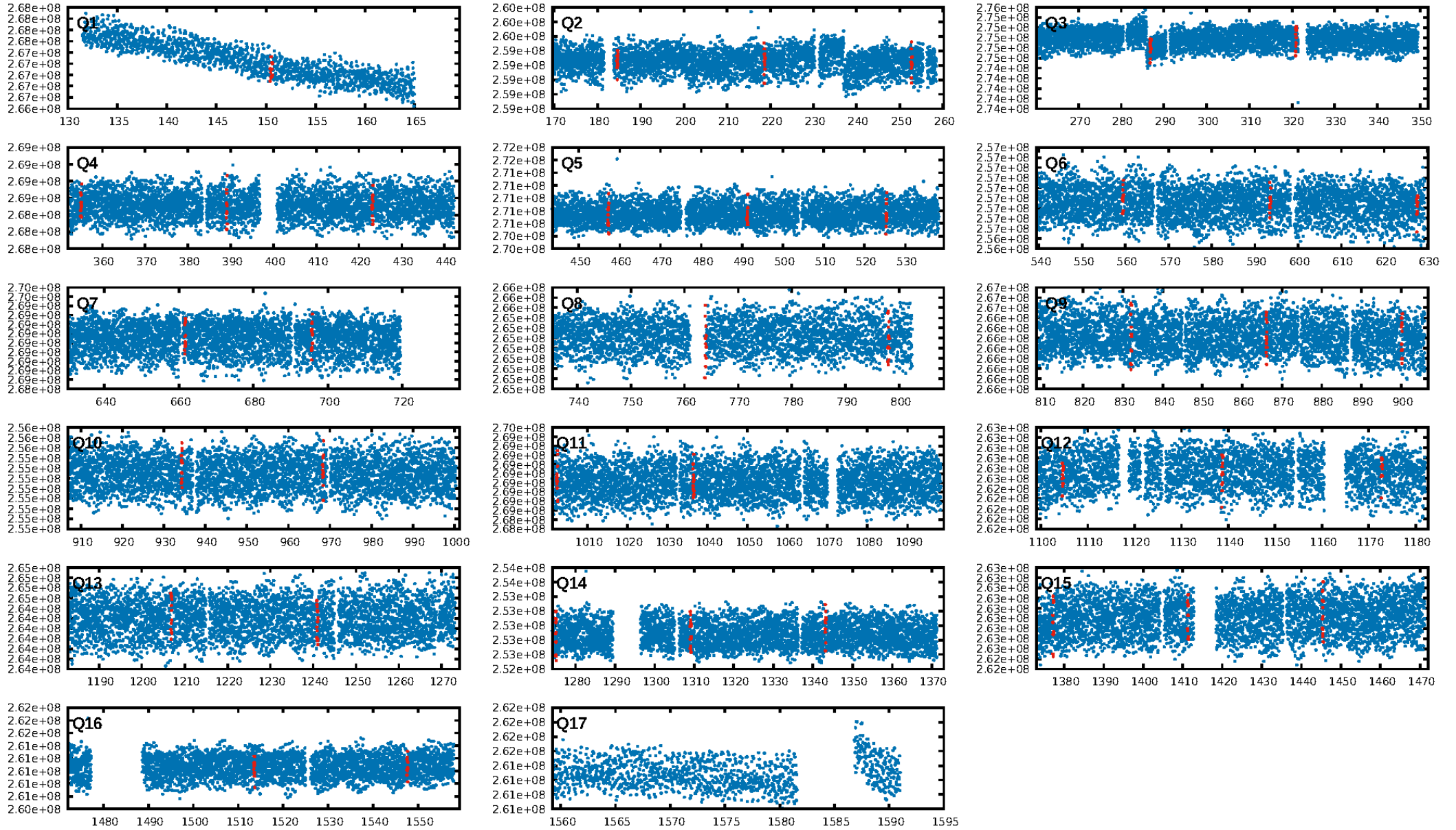
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.71 σ]
LongPeriod-sig: 100.0% [11.61 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 75.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: -6.341
Centroid-sig: N/A
Centroid-so: 0.868 arcsec [1.61 σ]
OotOffset-rm: 0.382 arcsec [0.93 σ]
KicOffset-rm: 0.220 arcsec [0.49 σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 0.29 [4/14]
DiffImageOverlap-fno: 0.00 [0/16]

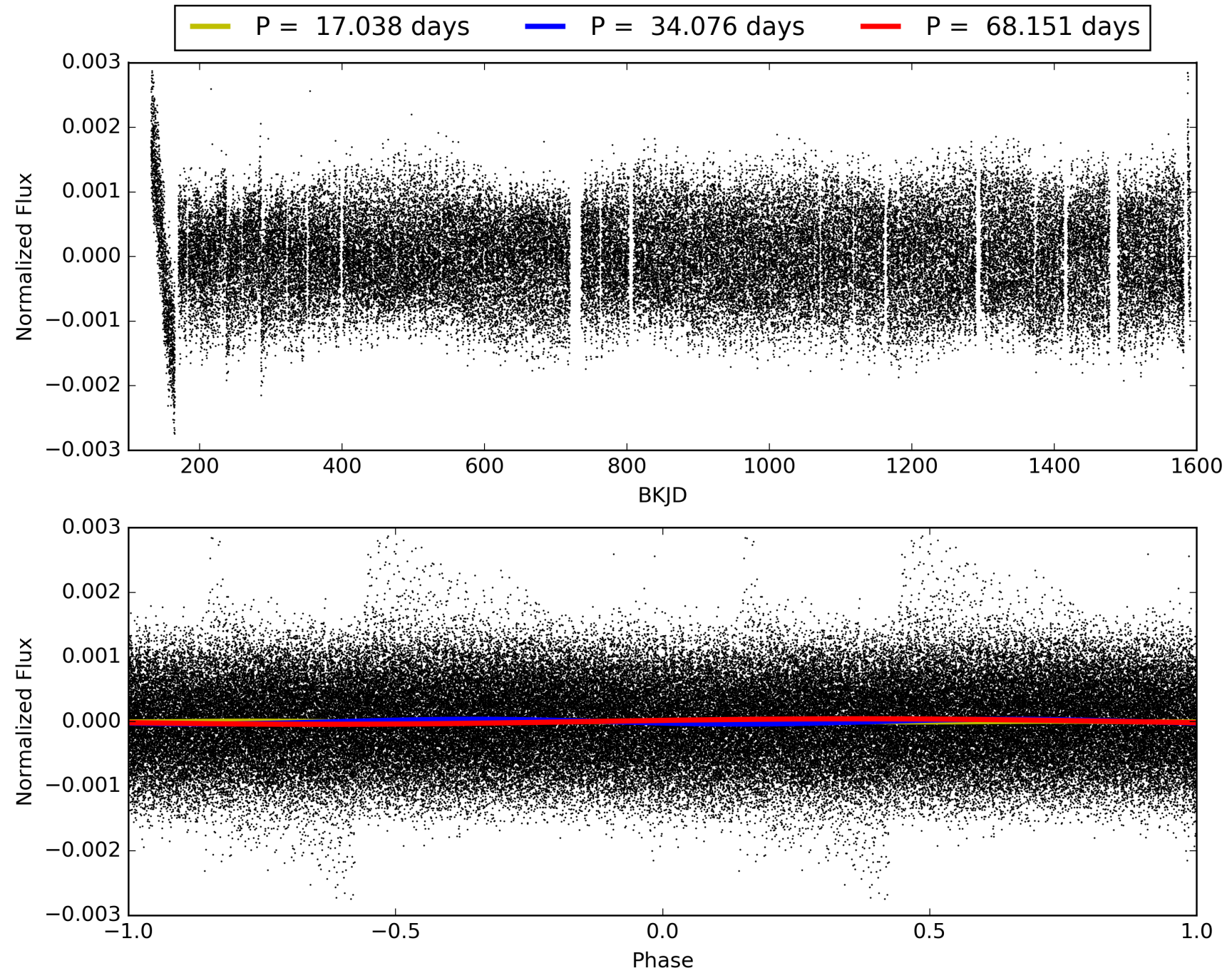
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:24 Z

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

TCE 002579906-02, PDC Light Curves

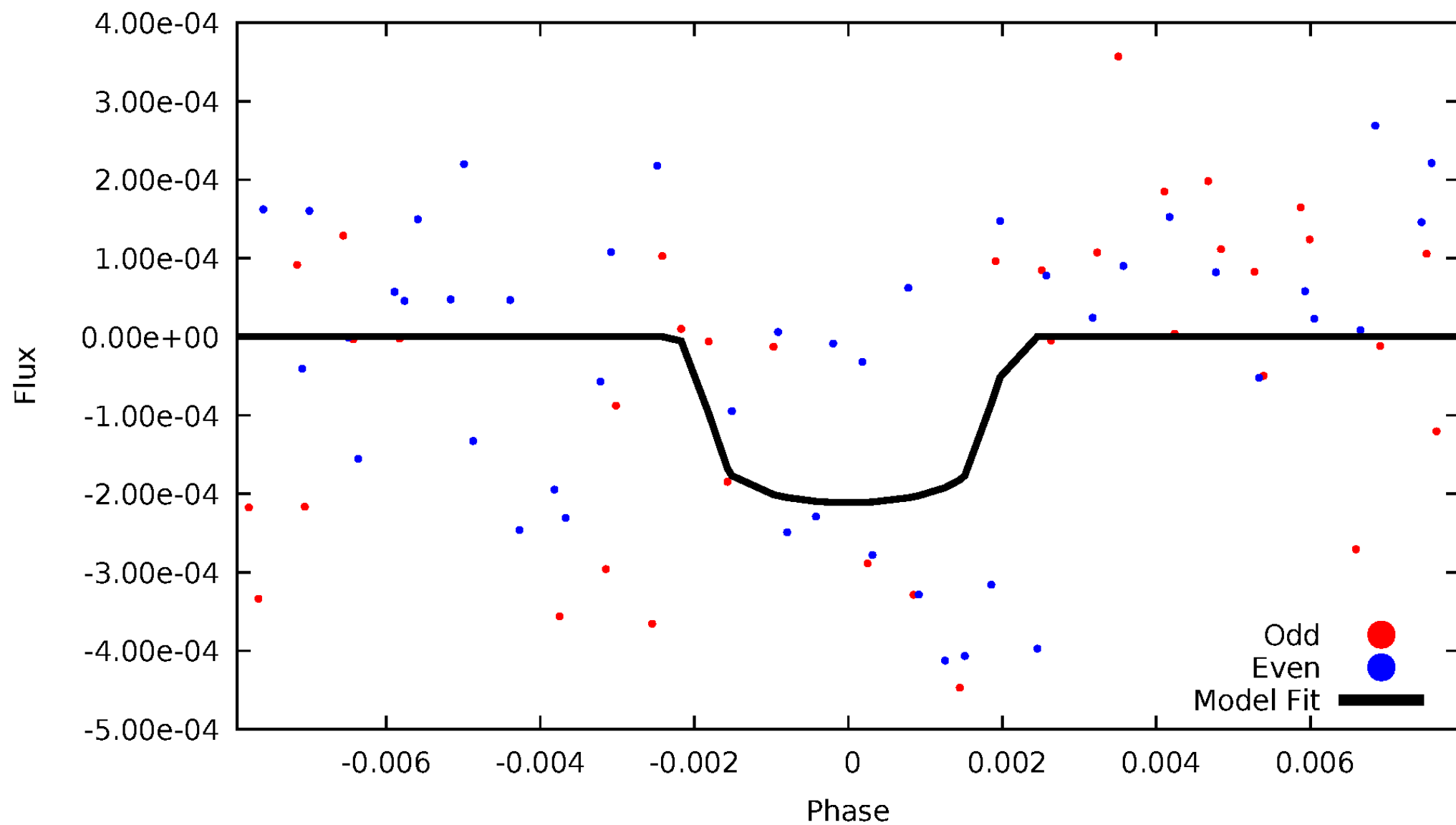


TCE 002579906-02



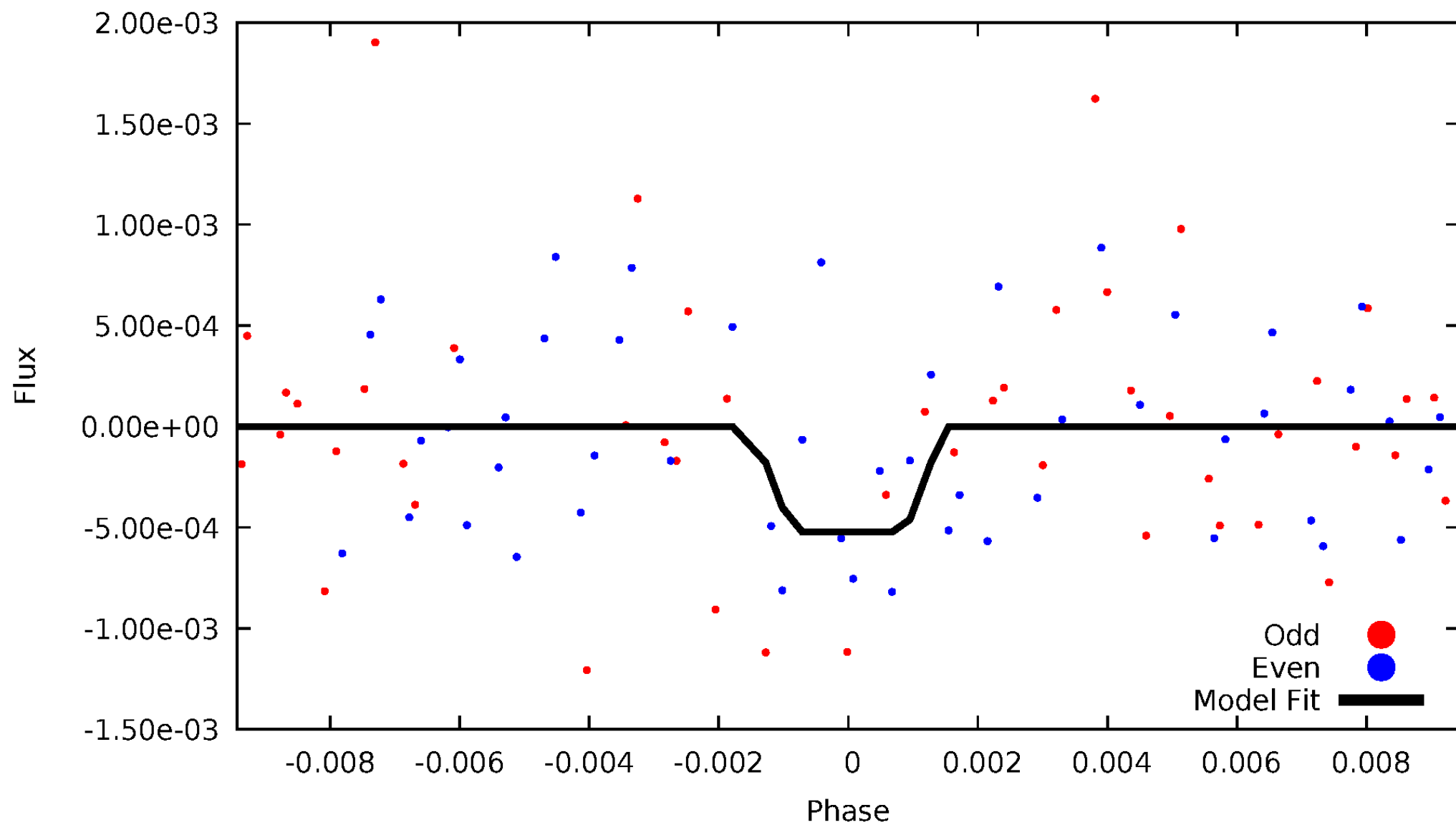
DV Odd/Even

TCE 002579906-02



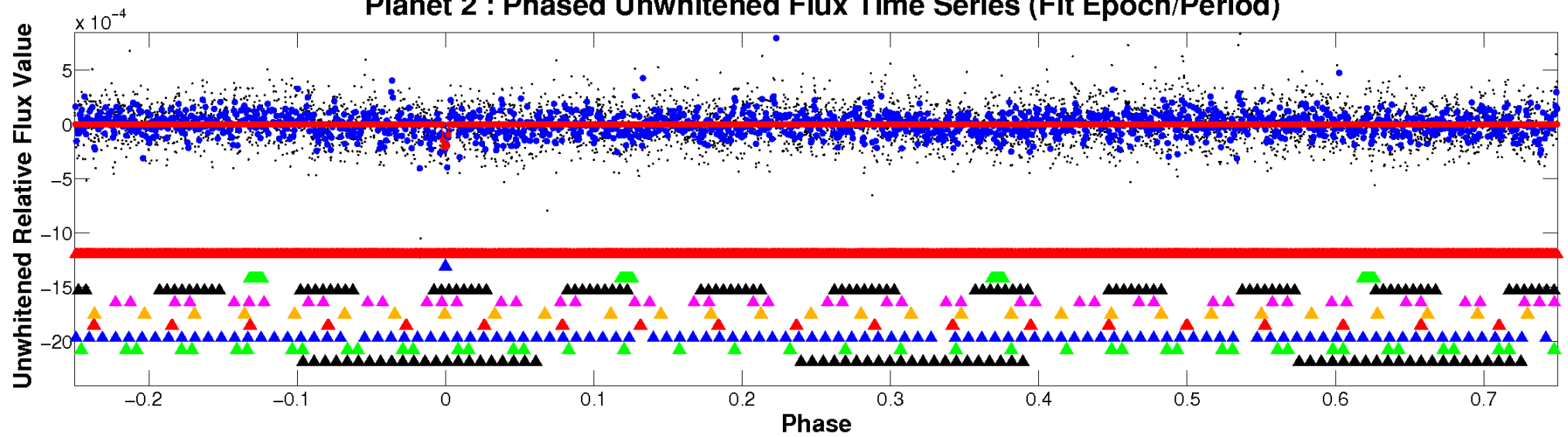
ALT Odd/Even

TCE 002579906-02

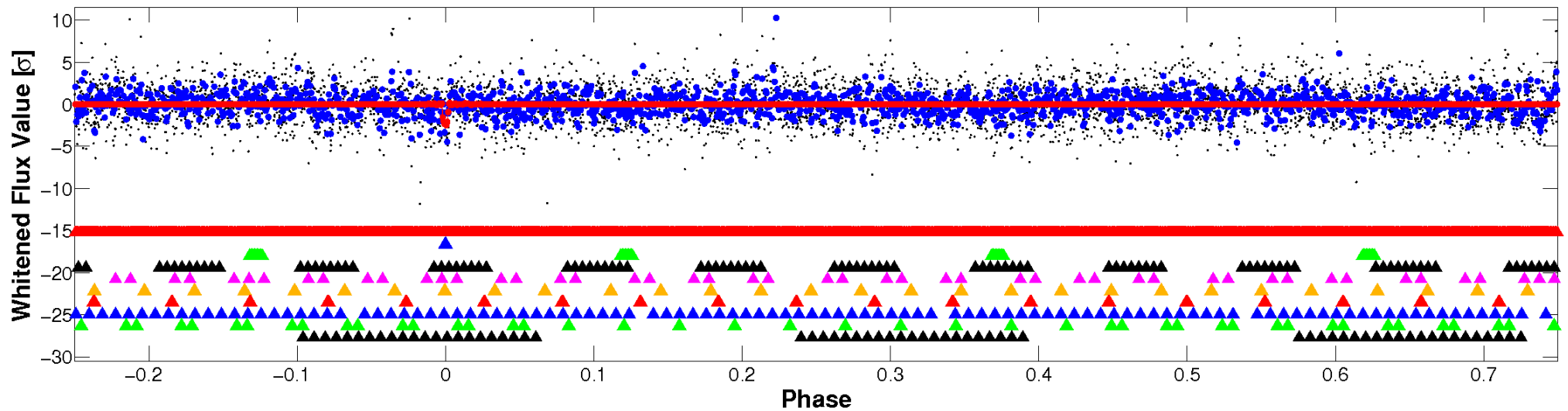


Non-Whitened Vs. Whitened Light Curve

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

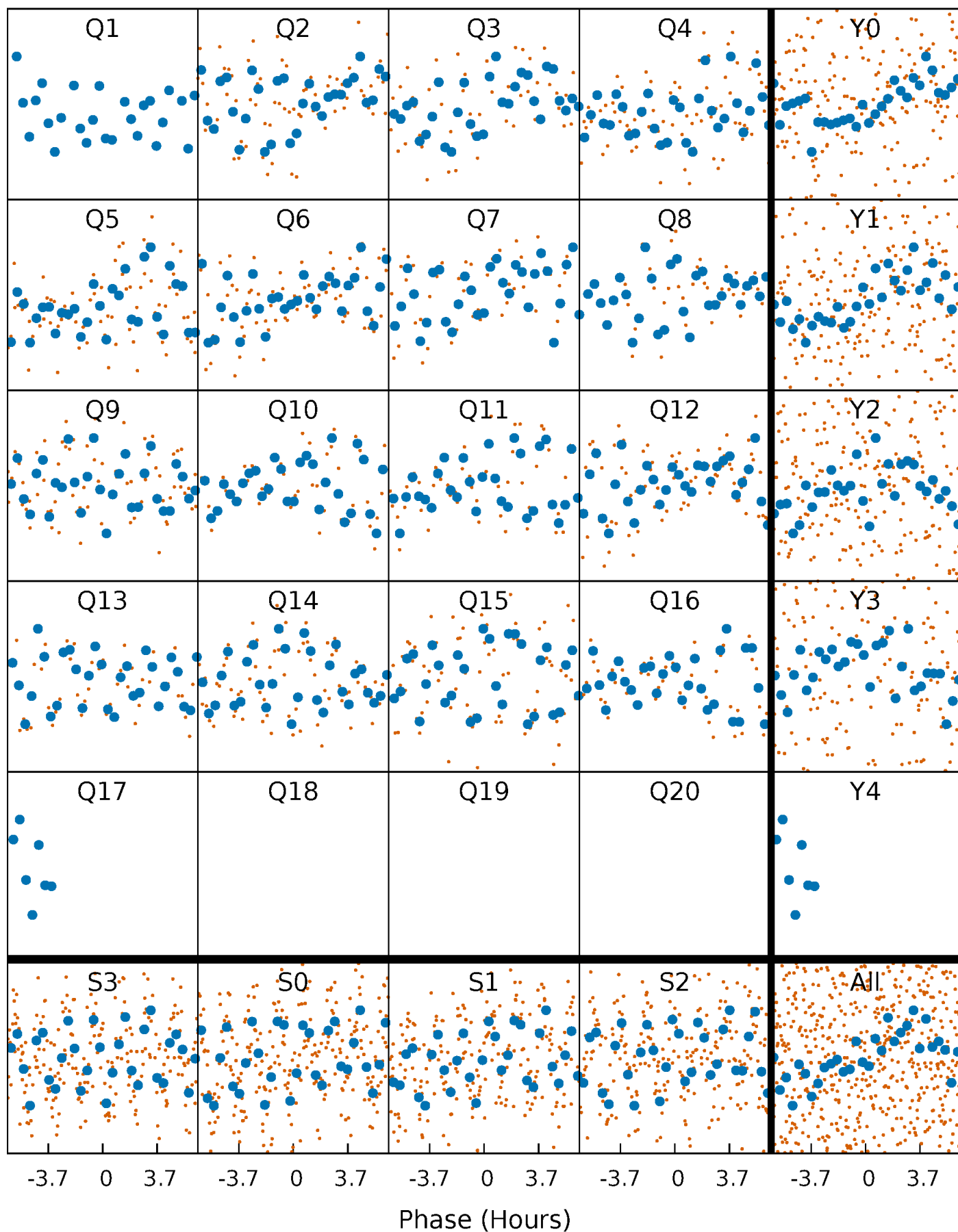


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



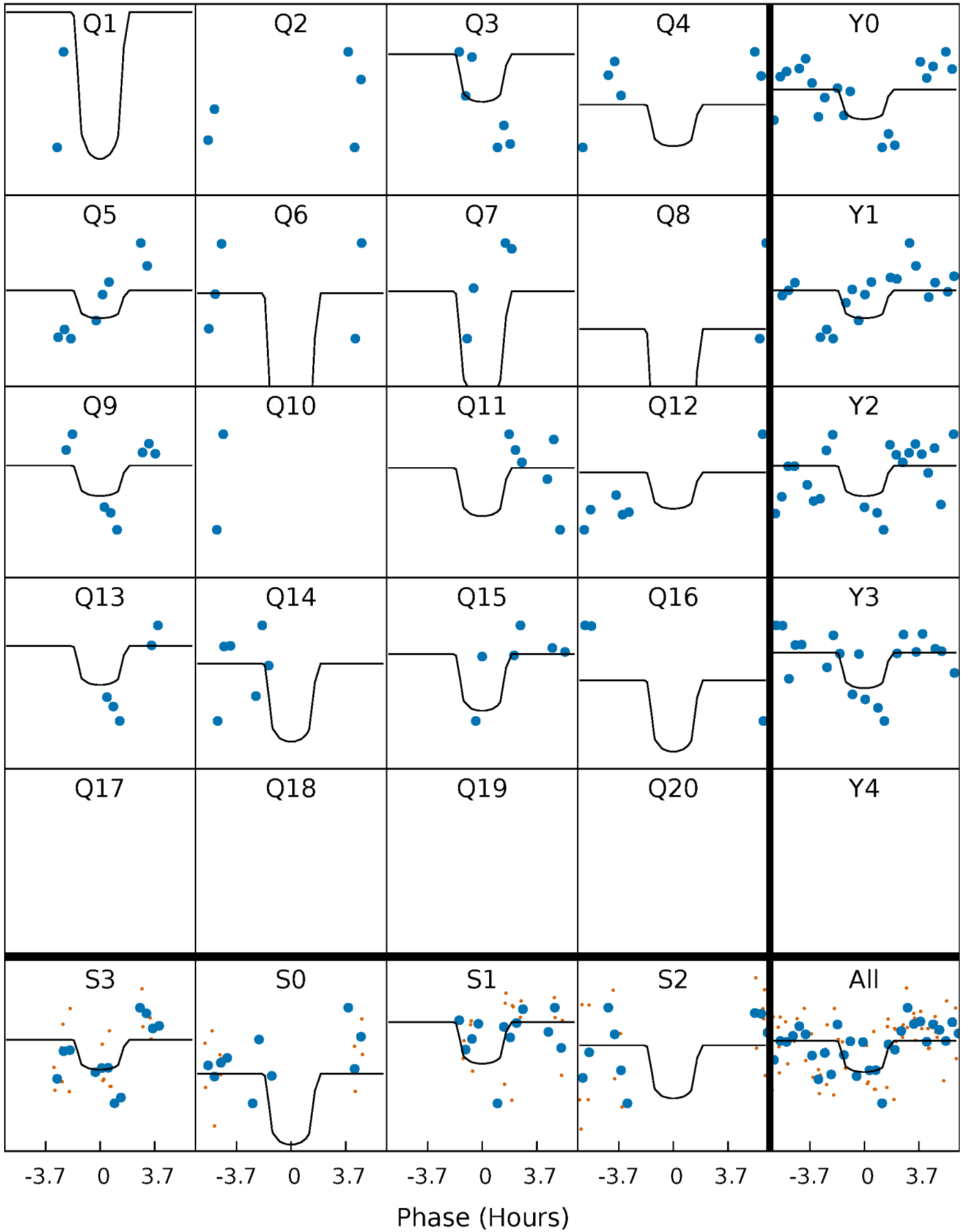
PDC Quarter-Phased Transit Curves

TCE 002579906-02 P= 34.075617 Days $T_0=150.544541$ (BKJD)



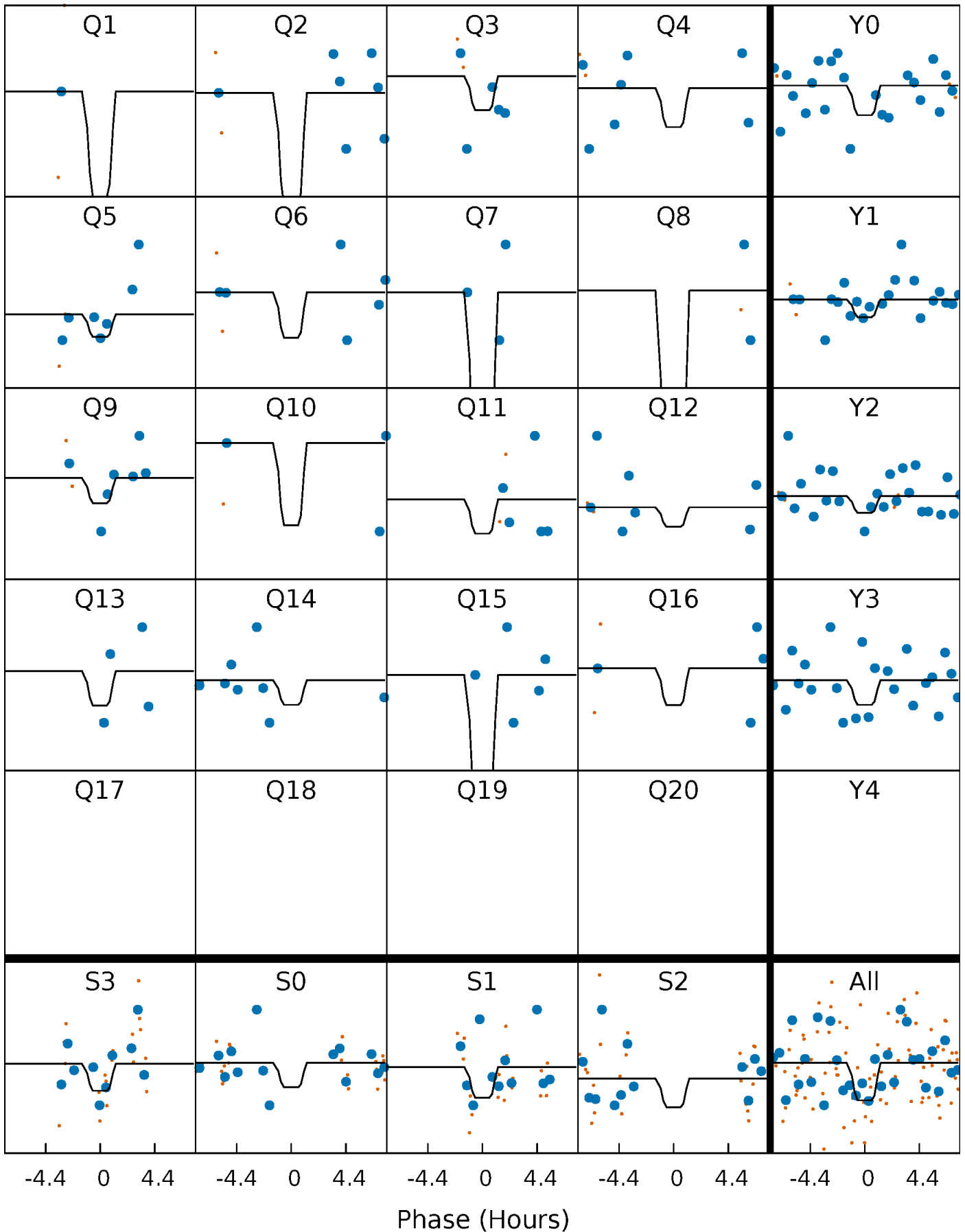
DV Quarter-Phased Transit Curves

TCE 002579906-02 P= 34.075617 Days $T_0=150.544541$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

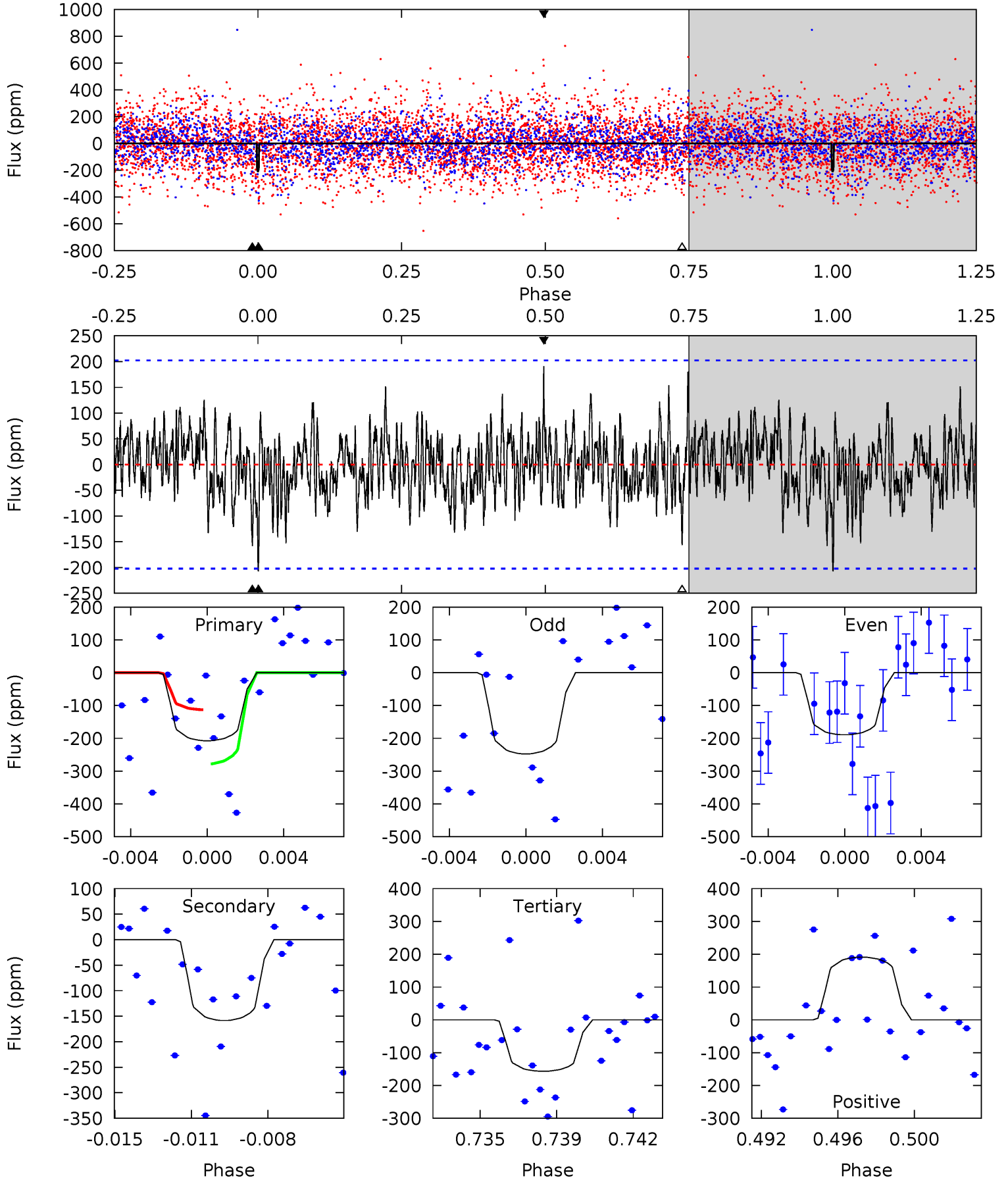
TCE 002579906-02 $P = 34.075536$ Days $T_0 = 150.555278$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-02, P = 34.075617 Days, E = 116.468924 Days

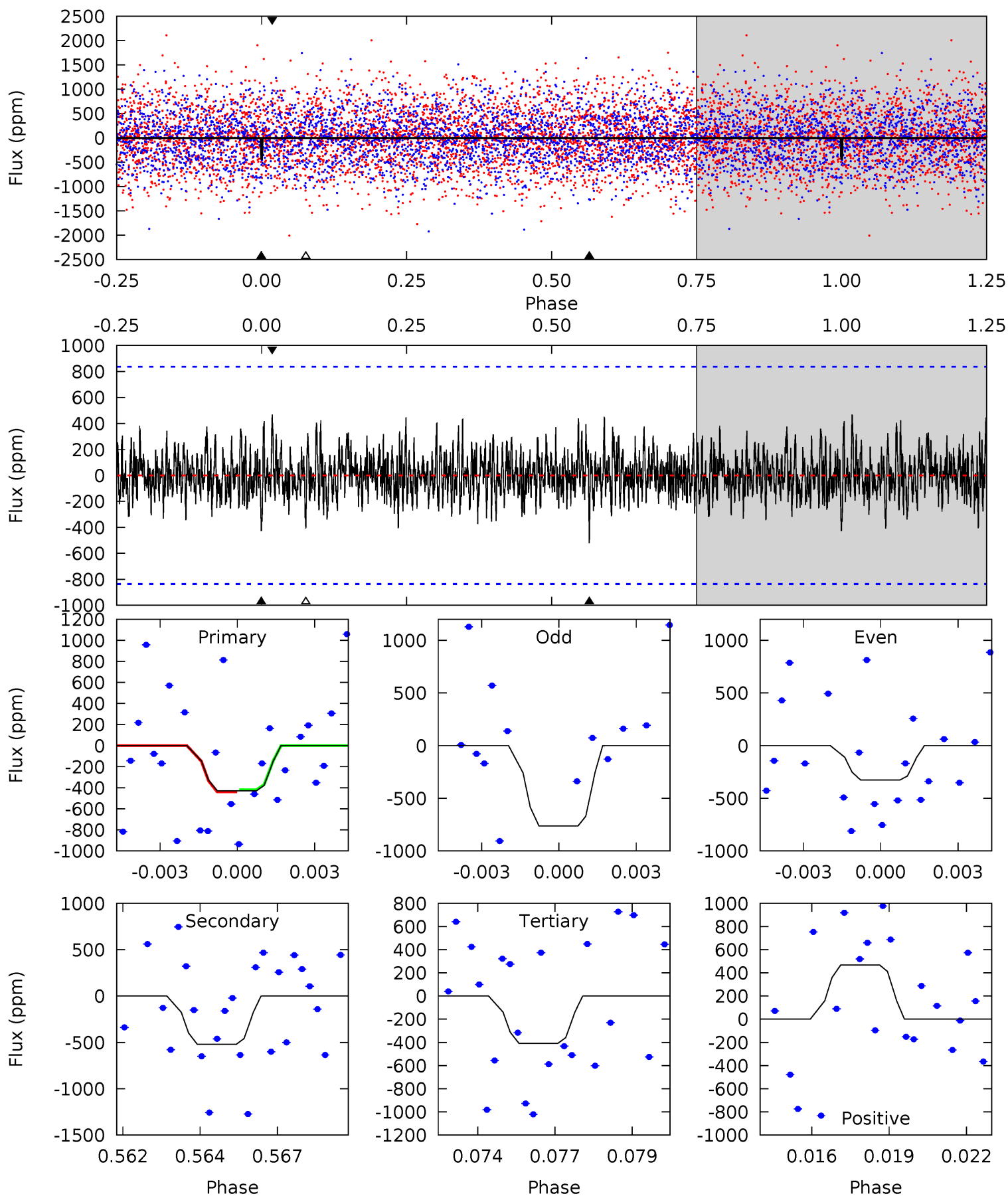
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.34	4.08	4.03	4.92	5.21	2.90	1.34	1.31	0.42	0.05	-0.84	0.70	1.75	0.48	2.09



Alt Model-Shift Uniqueness Test

002579906-02, P = 34.075536 Days, E = 116.479742 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.71	3.28	2.57	2.94	5.27	3.00	0.88	0.14	-0.24	0.71	0.34	1.18	1.20	0.47	0.06



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-158 ± 39	$6.38^{+5.33}_{-4.19}$	1514^{+106}_{-178}	5476^{+4597}_{-1183}	132^{+954}_{-95}
Alt.	-521 ± 159	$7.52^{+5.94}_{-4.43}$	1504^{+106}_{-164}	6764^{+5834}_{-1713}	312^{+1641}_{-221}

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

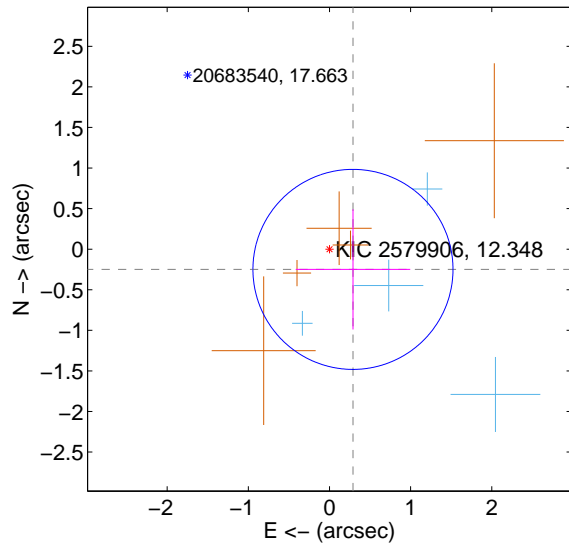
Supplemental centroid analysis for 002579906-02. Kepler magnitude: 12.35. Transit SNR 8.69

There are 4 quarters with good PRF difference image offsets

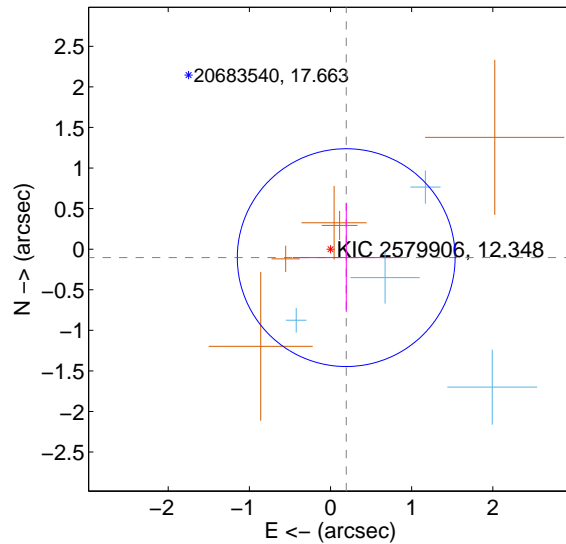
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.382 ± 0.411	0.93	-0.289 ± 0.705	-0.249 ± 0.741
PRF-fit source offset from KIC position	0.220 ± 0.447	0.49	-0.193 ± 0.657	-0.104 ± 0.669
photometric centroid source offset	0.87 ± 0.54	1.61	0.28 ± 0.46	-0.82 ± 0.55

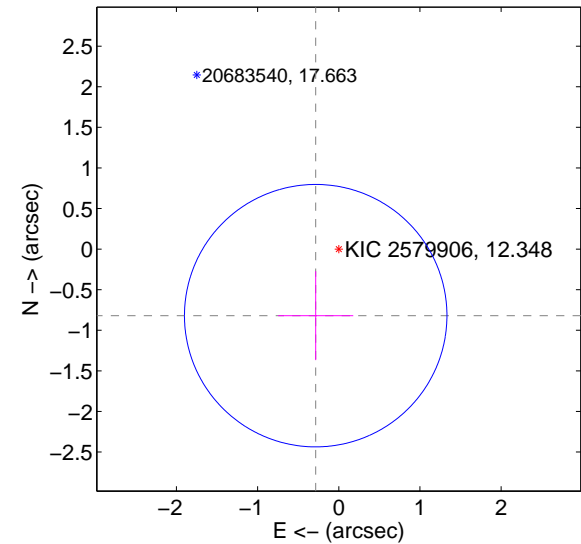
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

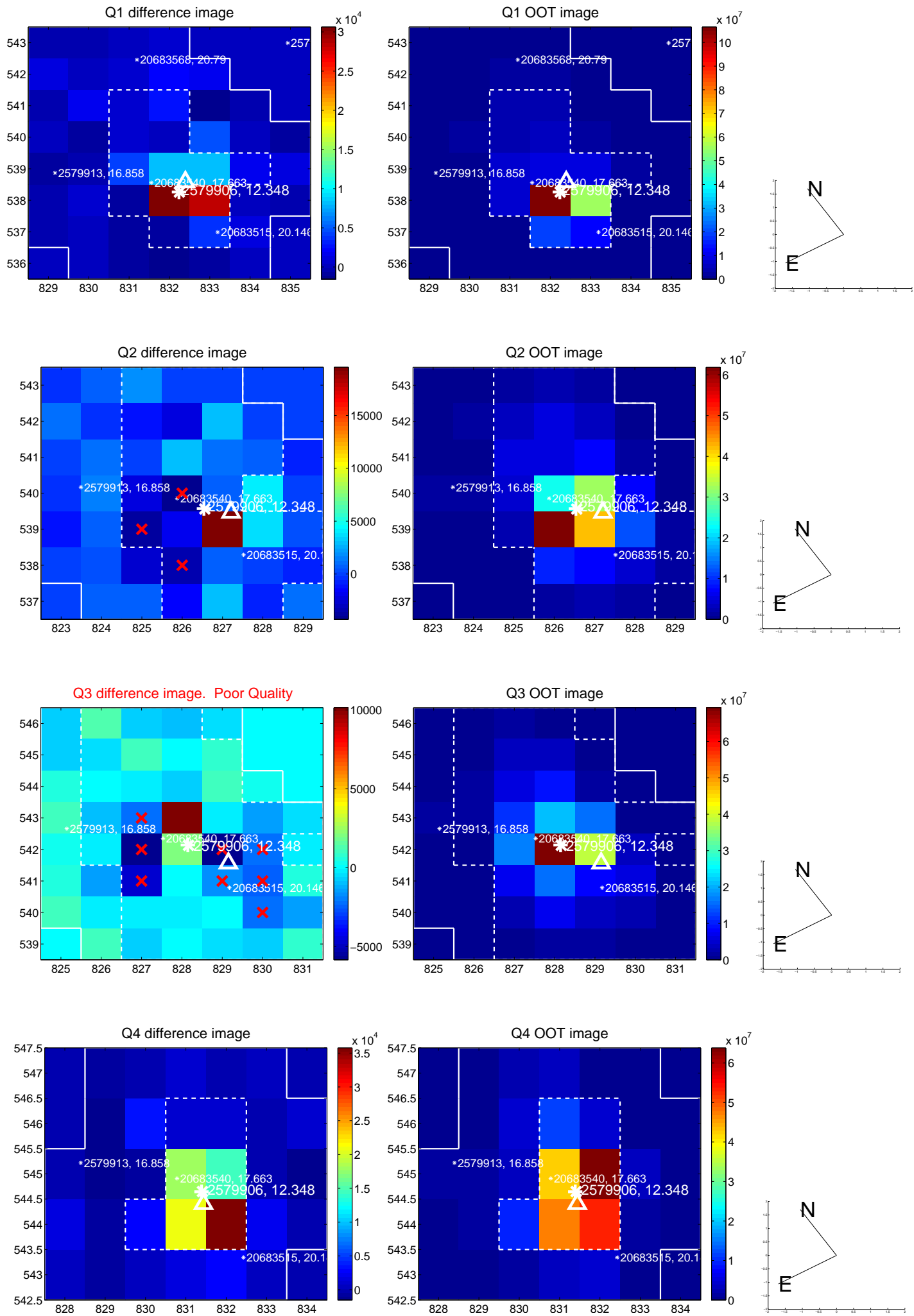


offset from photometric centroids

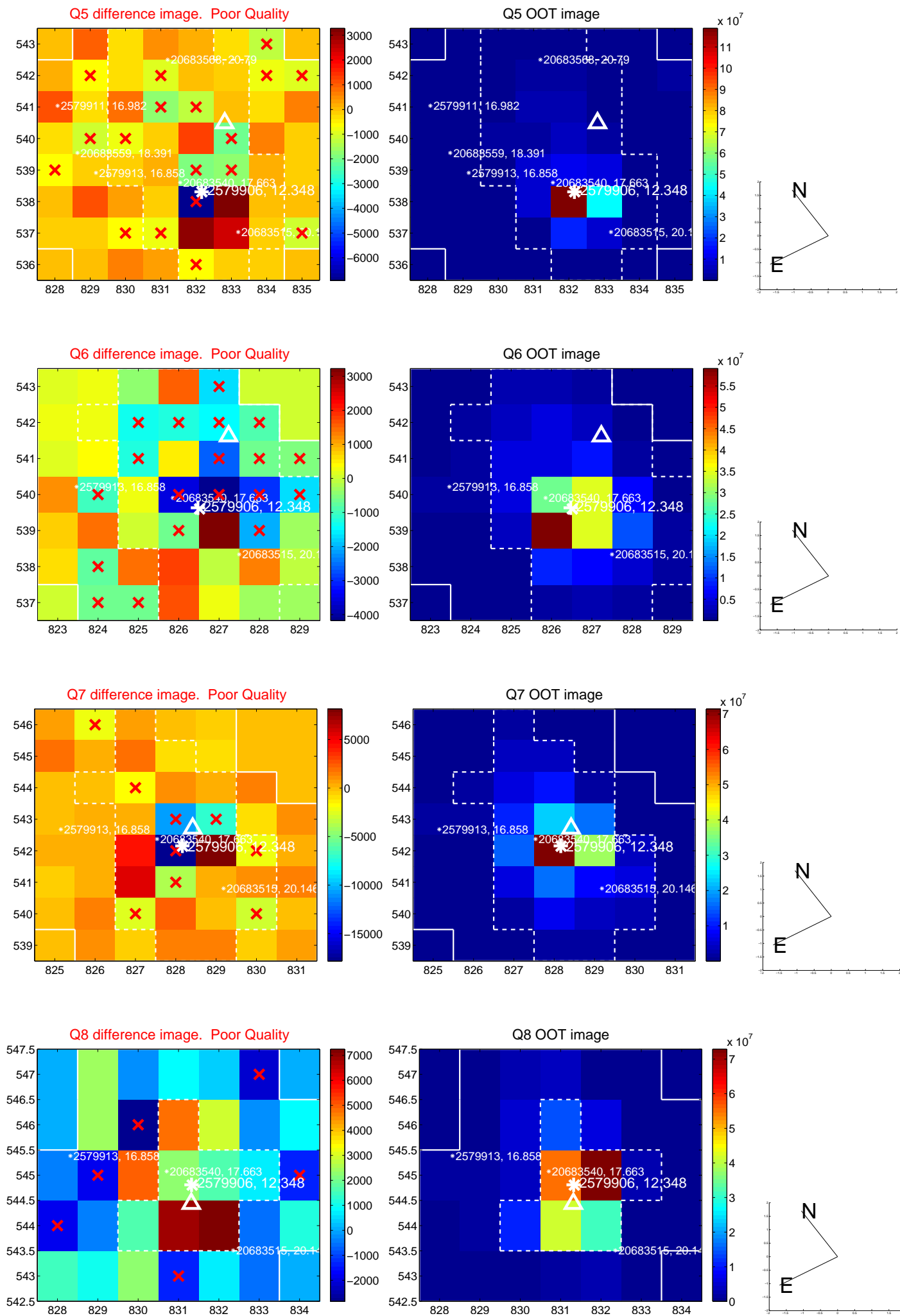


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

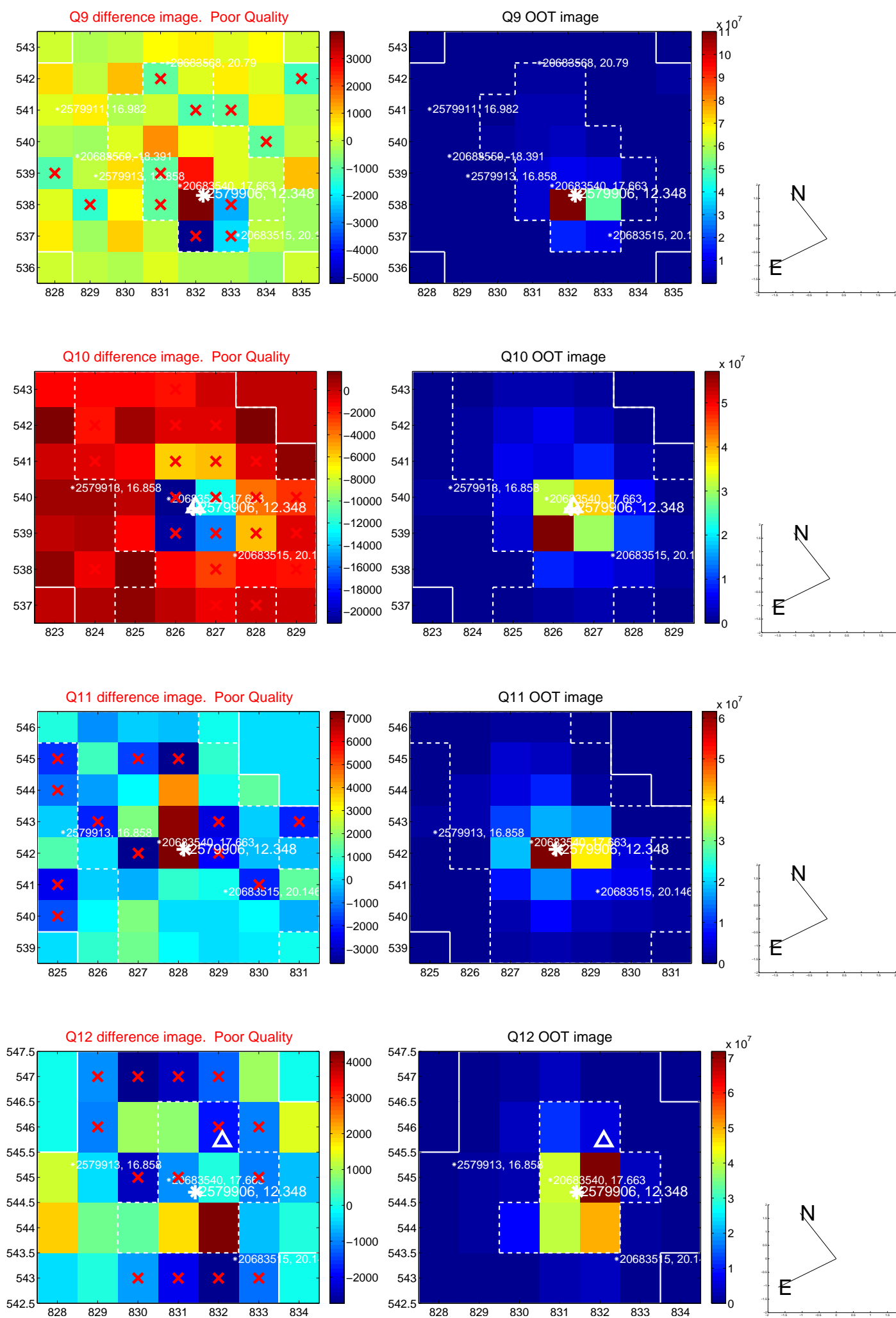
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



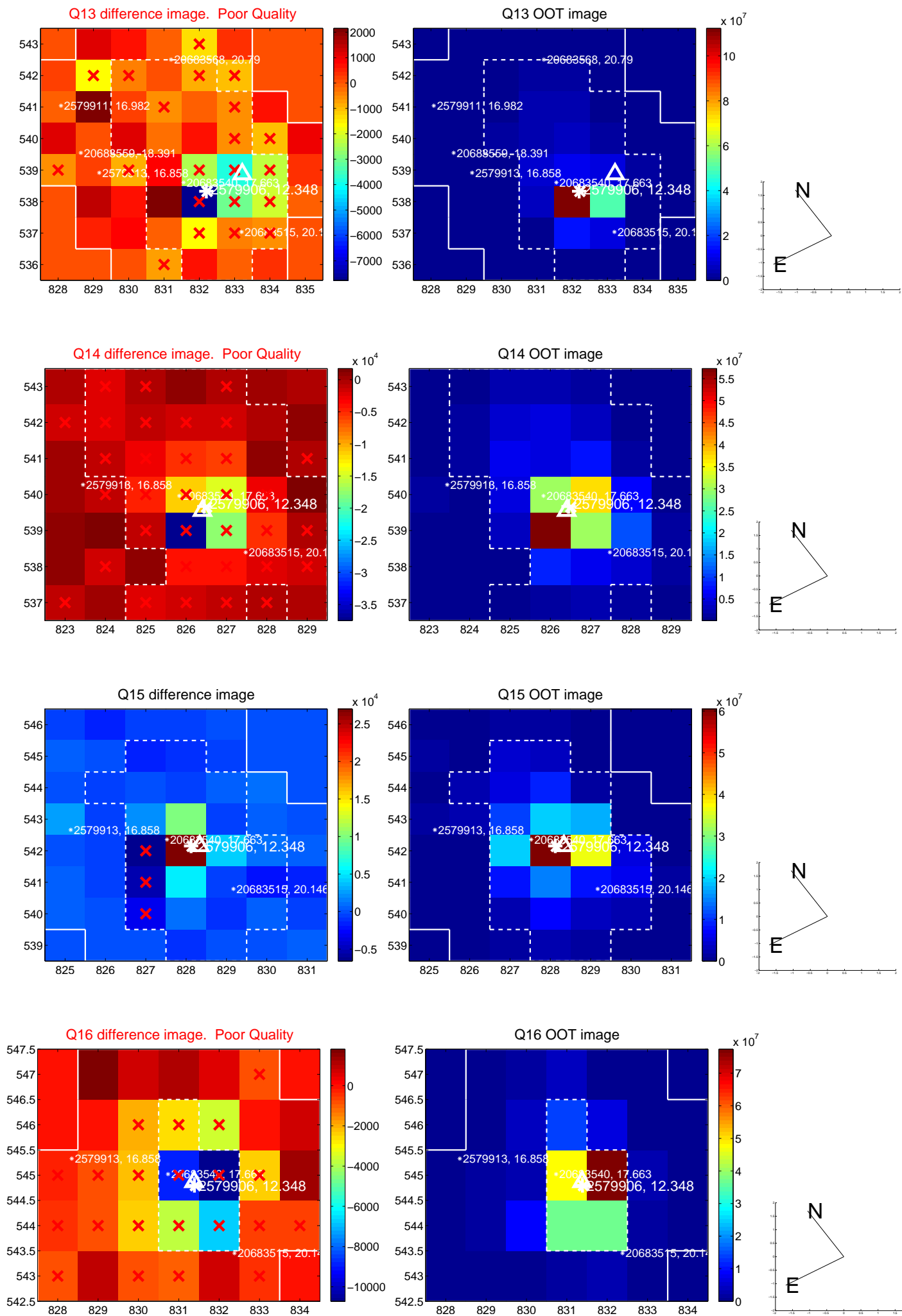
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



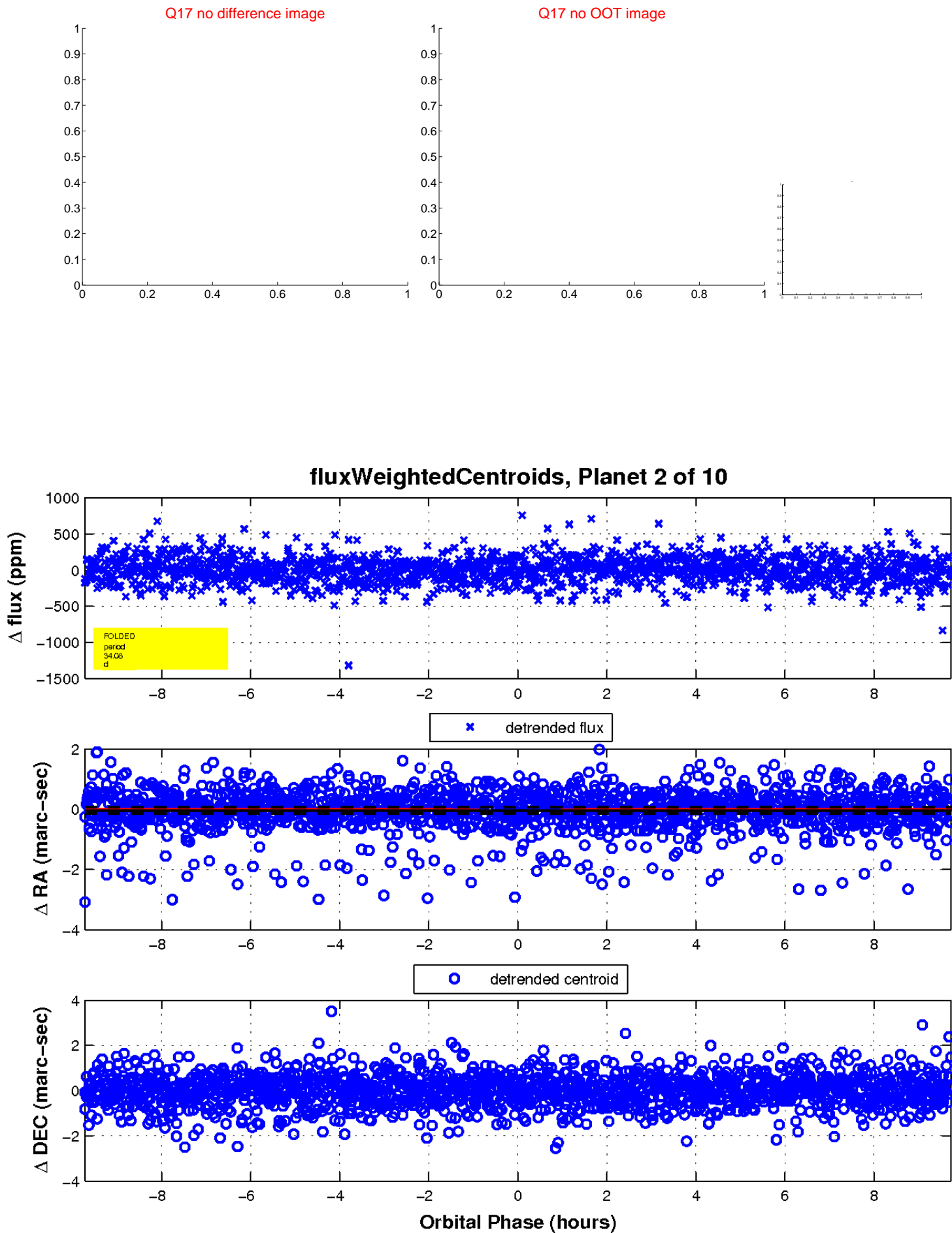
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



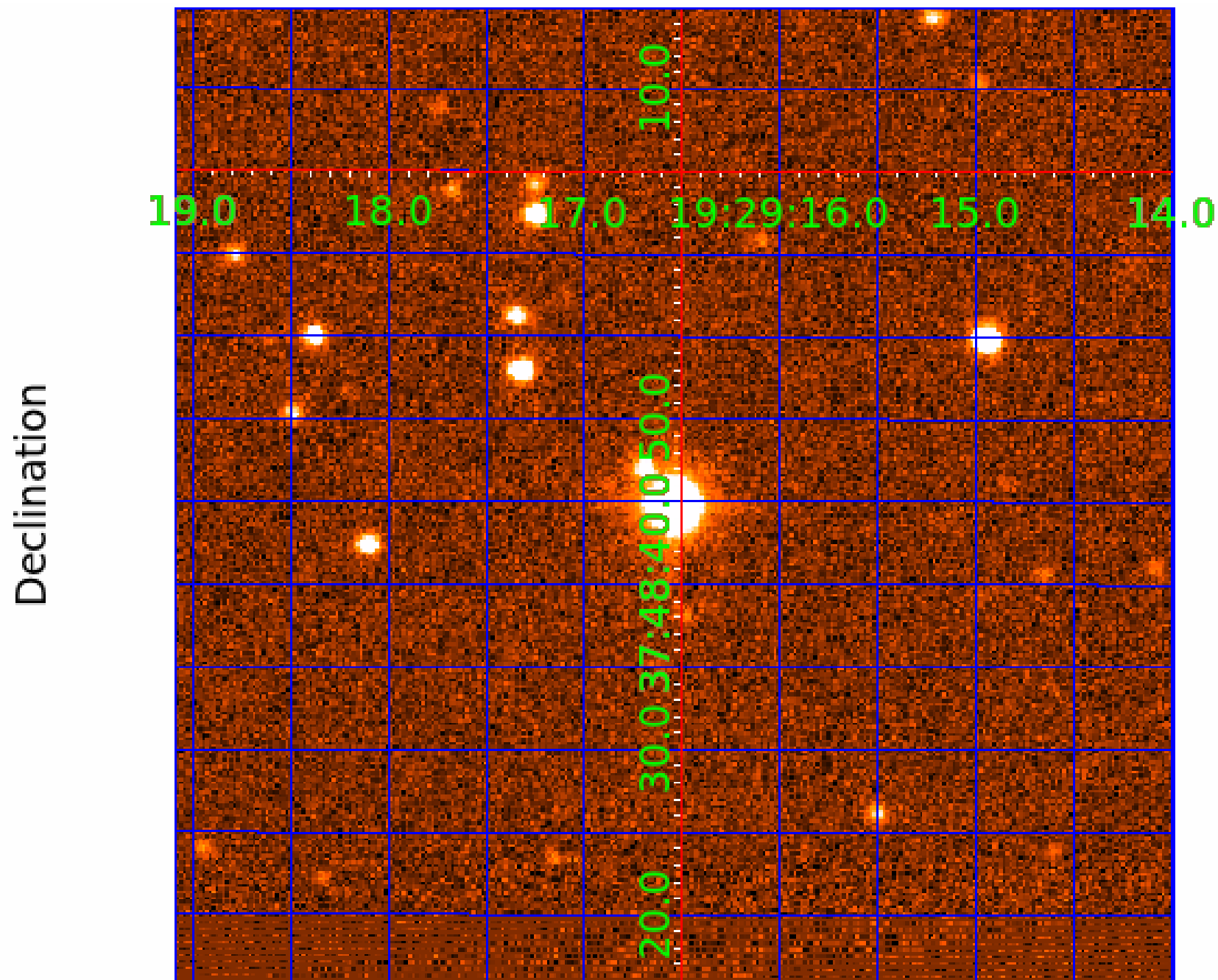
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

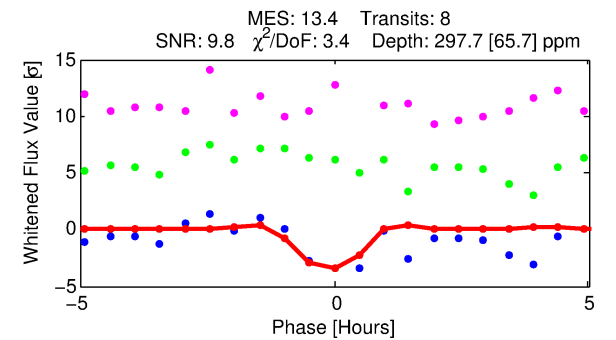
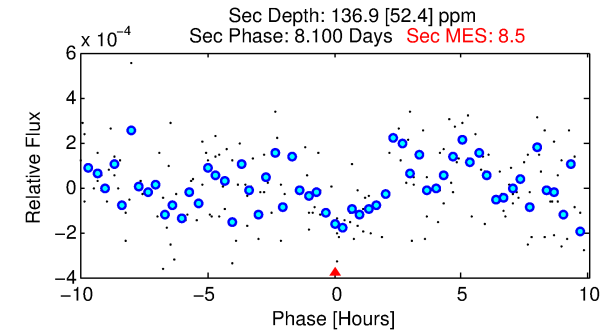
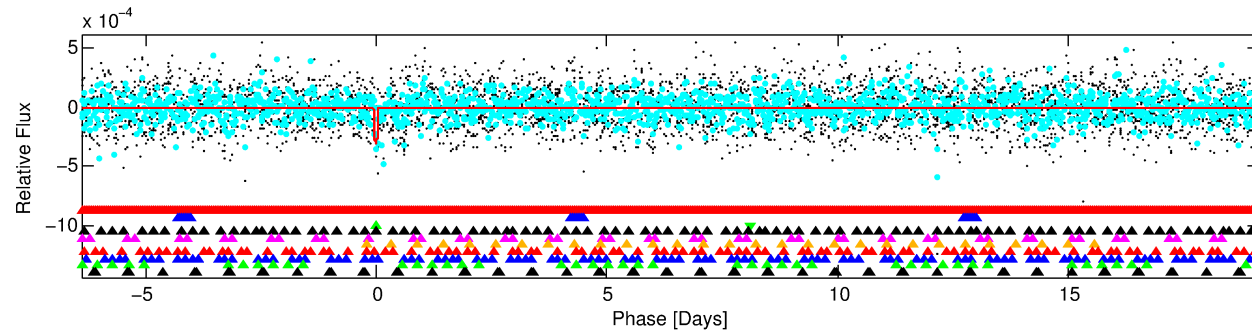
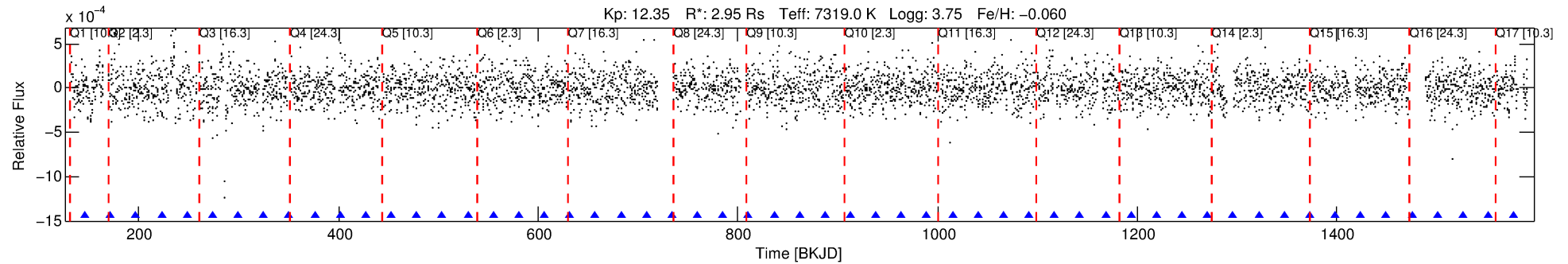
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-03

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 3 of 10 Period: 25.551 d

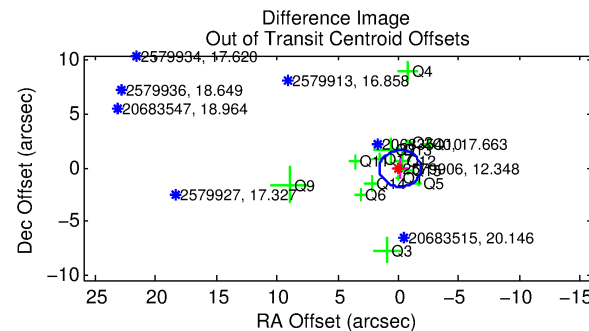
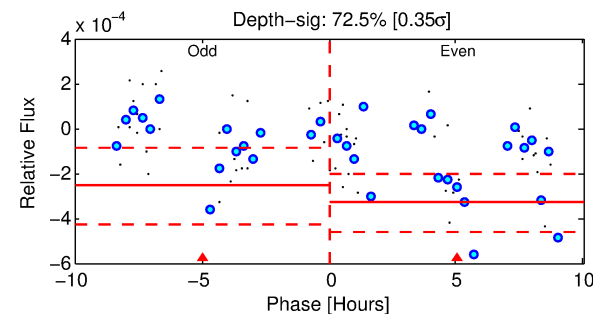
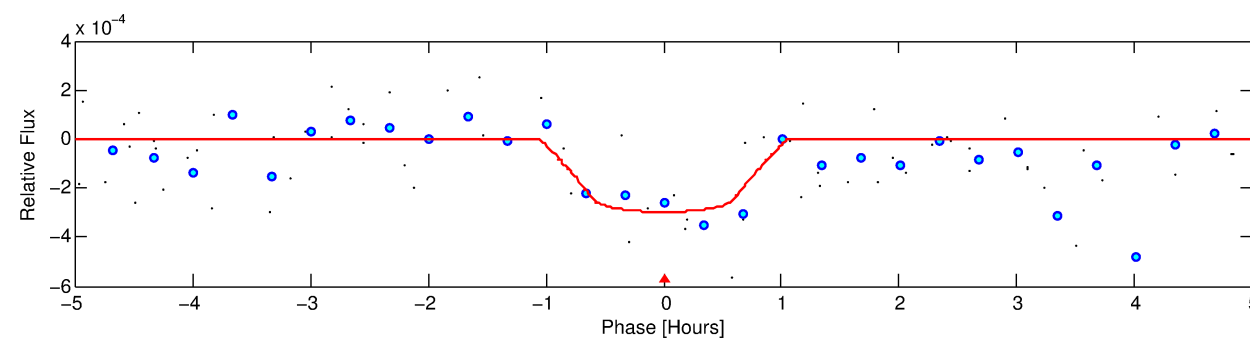


DV Fit Results:

Period = 25.55140 [0.00052] d
Epoch = 146.3382 [0.0163] BKJD
Rp/R* = 0.0162 [0.0313]
a/R* = 111.37 [1224.45]
b = 0.36 [27.31]
Seff = 527.38 [381.91]
Teq = 1222 [221] K
Rp = 5.23 [10.33] Re
a = 0.2060 [0.0897] AU
Ag = 116.89 [459.82] [0.25σ]
Teffp = 6212 [6016] K [0.83σ]

DV Diagnostic Results:

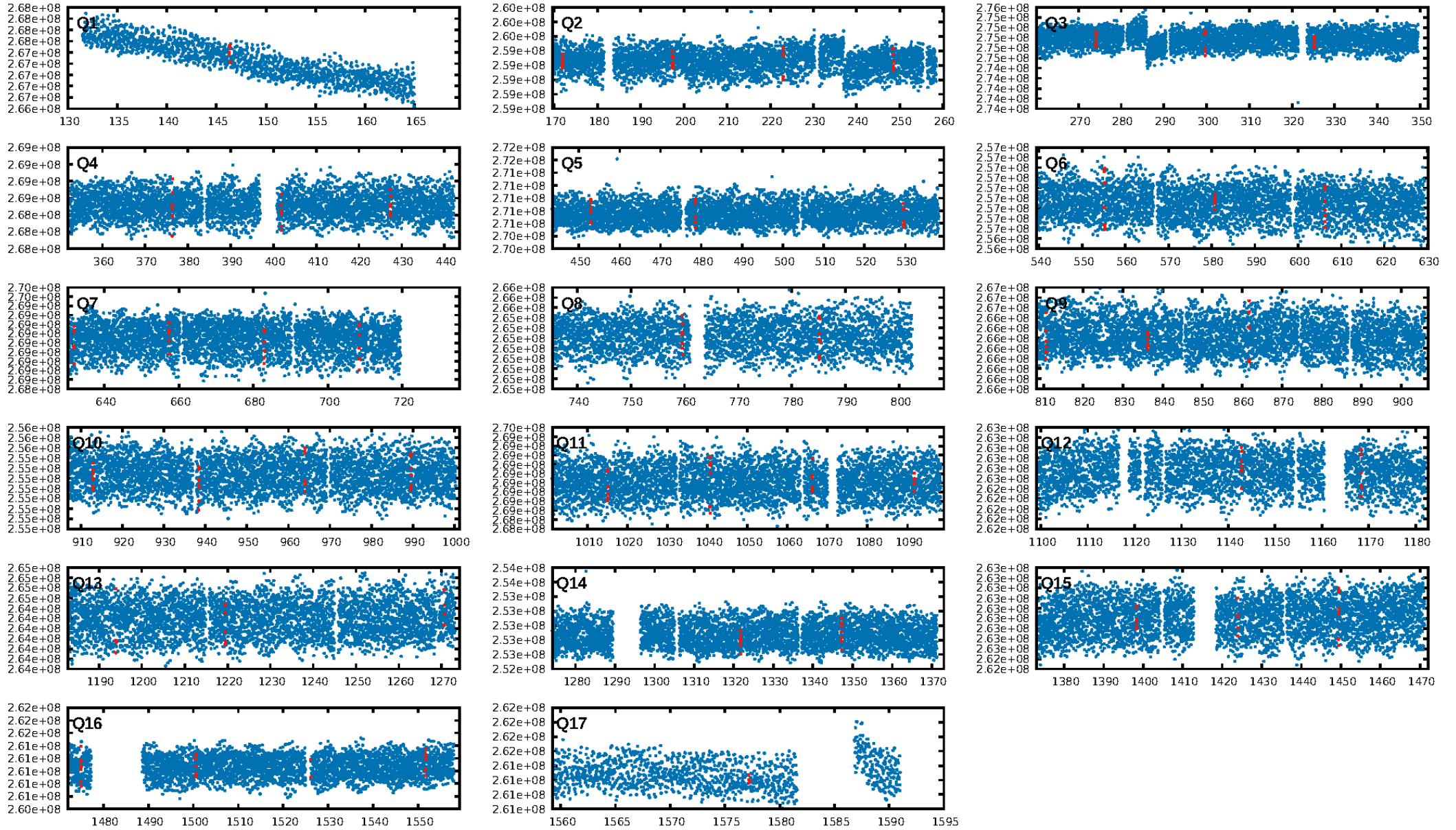
ShortPeriod-sig: 100.0% [17.77σ]
LongPeriod-sig: 100.0% [31.20σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 63.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -0.696
Centroid-sig: N/A
Centroid-so: 0.755 arcsec [1.54σ]
OotOffset-rm: 0.179 arcsec [0.31σ]
KicOffset-rm: 0.108 arcsec [0.17σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 0.33 [5/15]
DiffImageOverlap-fno: 0.00 [0/17]



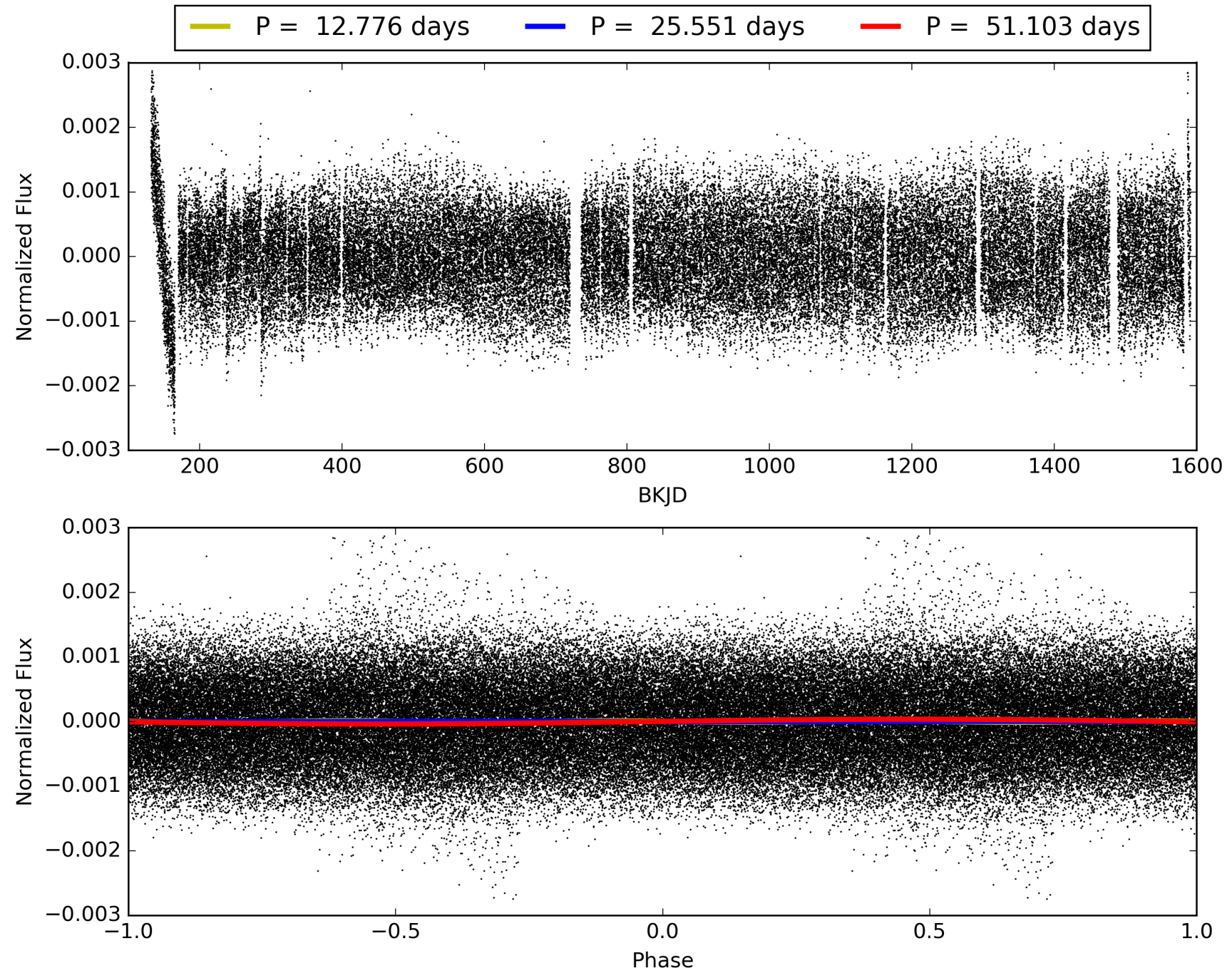
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:27 Z

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

TCE 002579906-03, PDC Light Curves

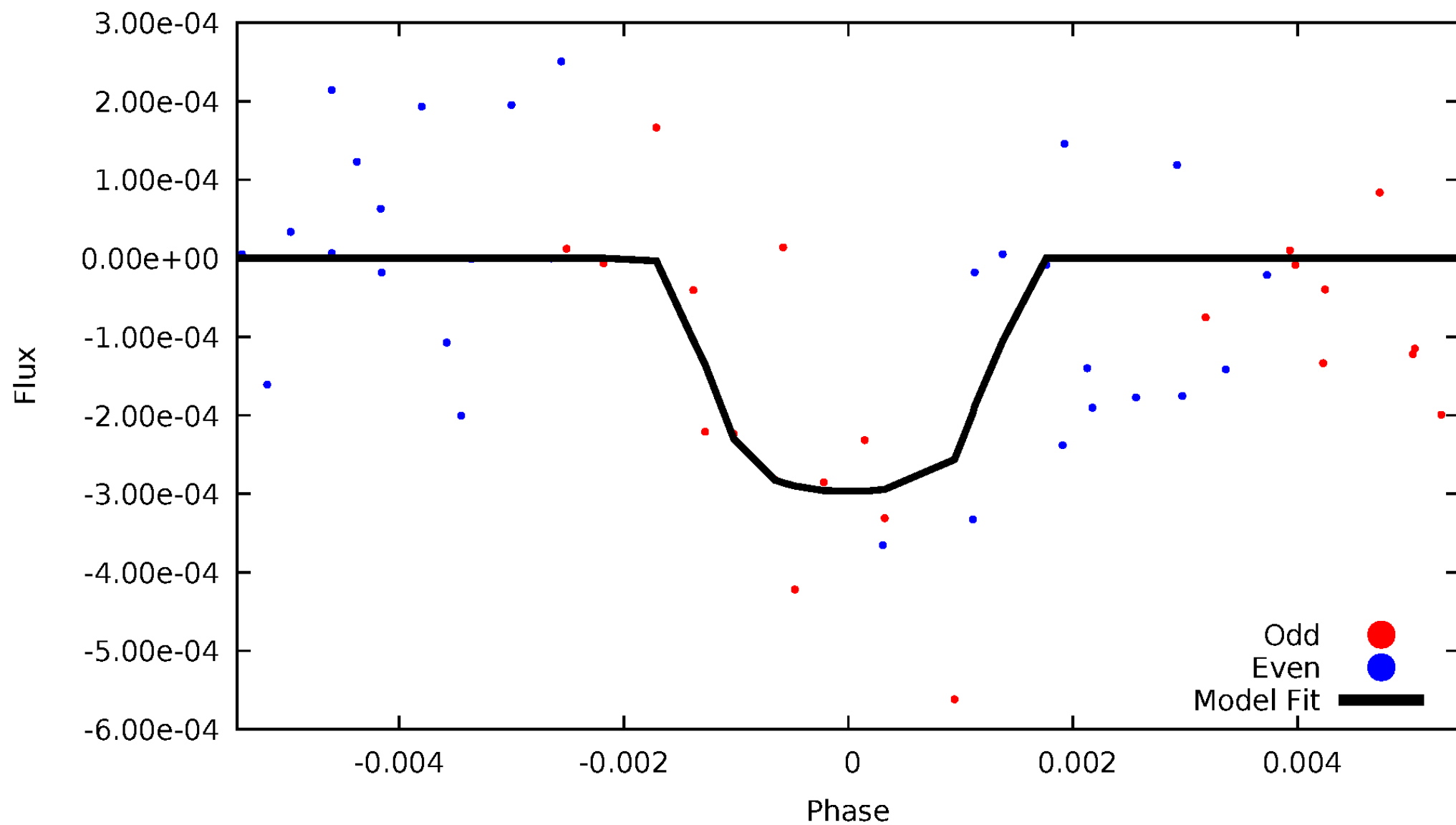


TCE 002579906-03



DV Odd/Even

TCE 002579906-03

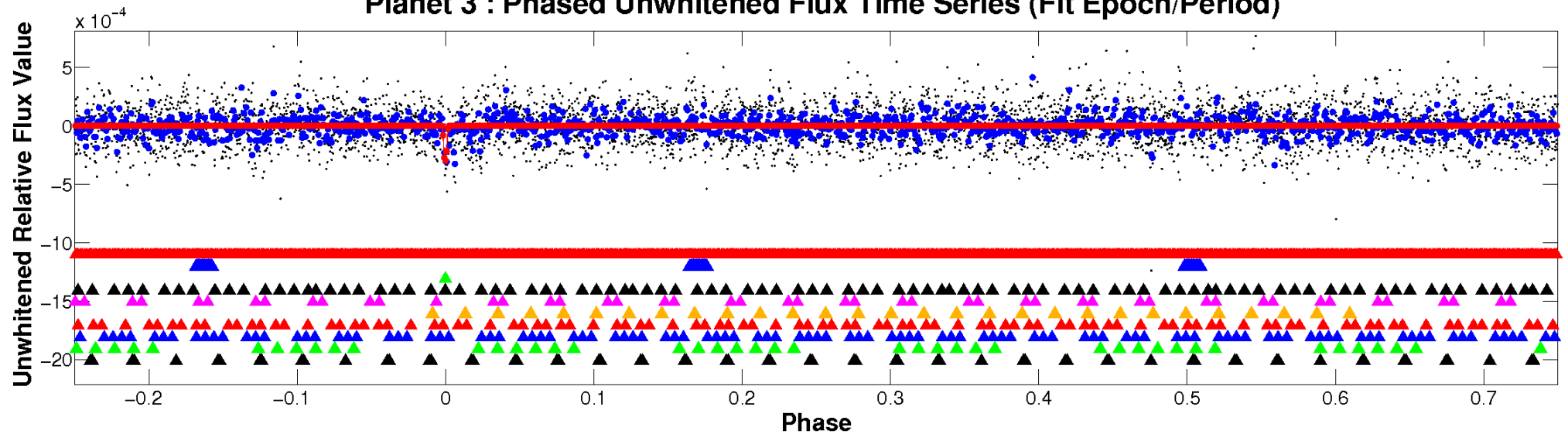


ALT Odd/Even

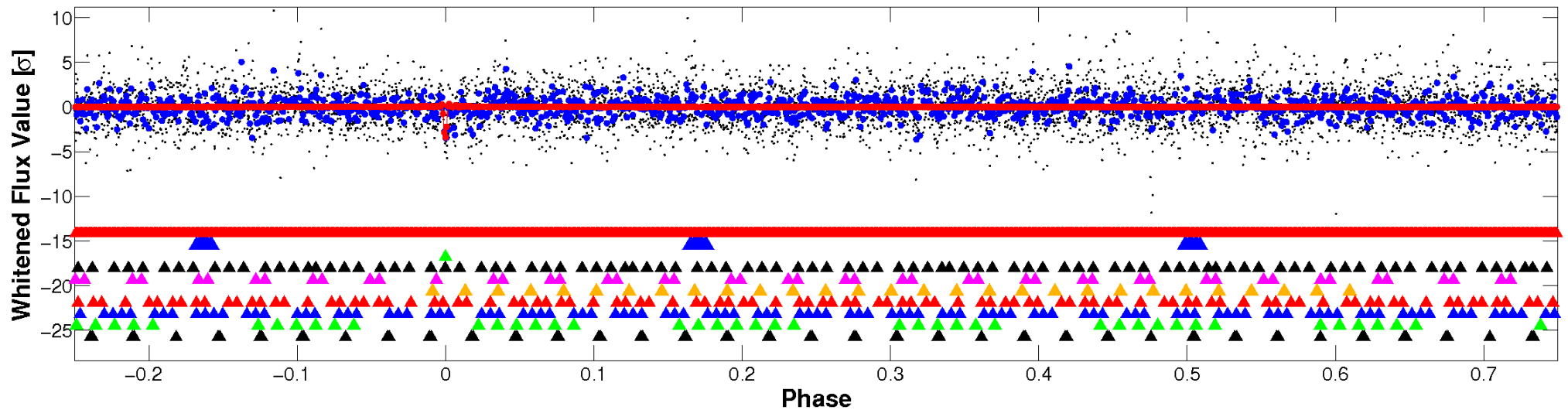
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

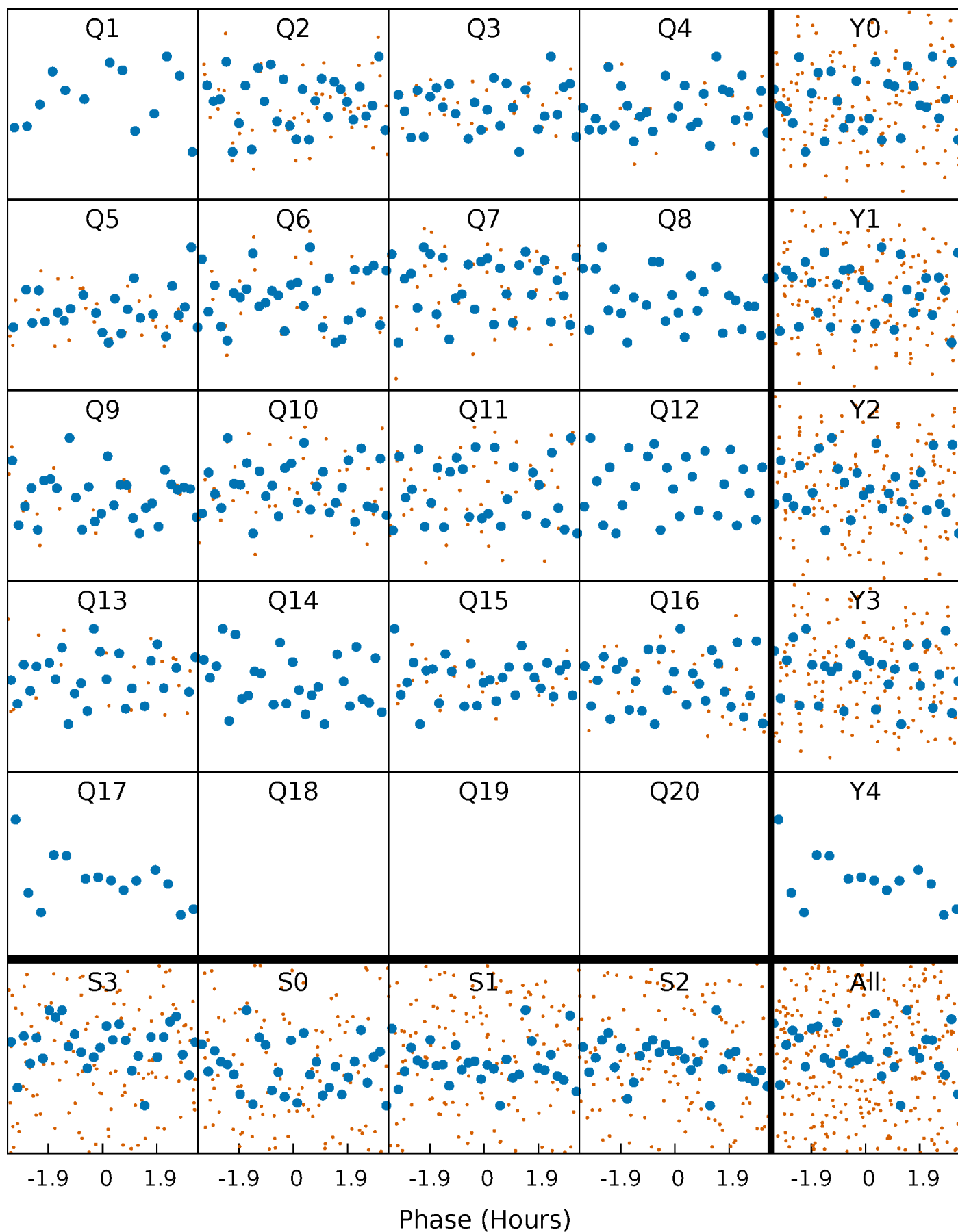


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



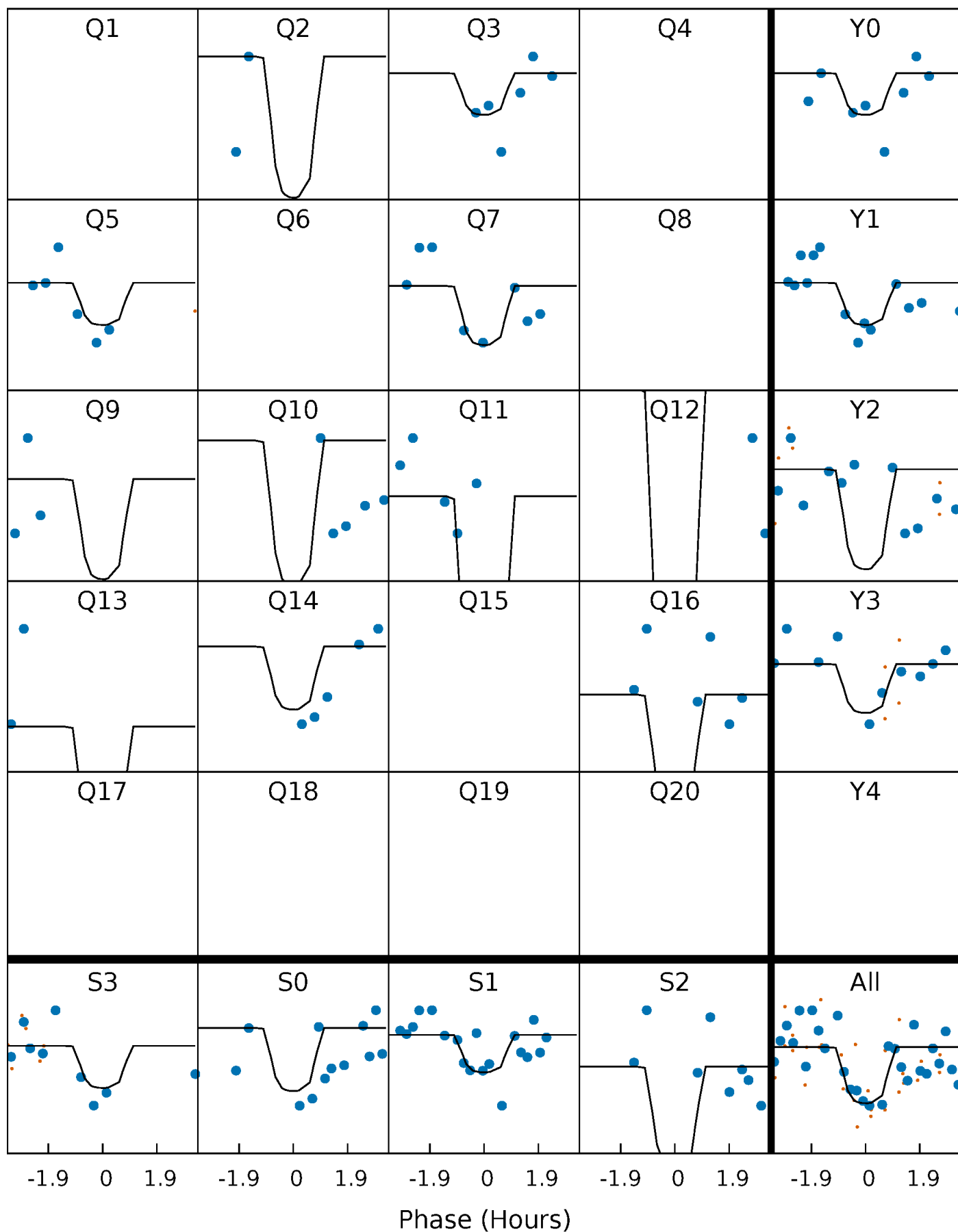
PDC Quarter-Phased Transit Curves

TCE 002579906-03 P= 25.551405 Days $T_0=146.338215$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 002579906-03 P= 25.551405 Days $T_0=146.338215$ (BKJD)

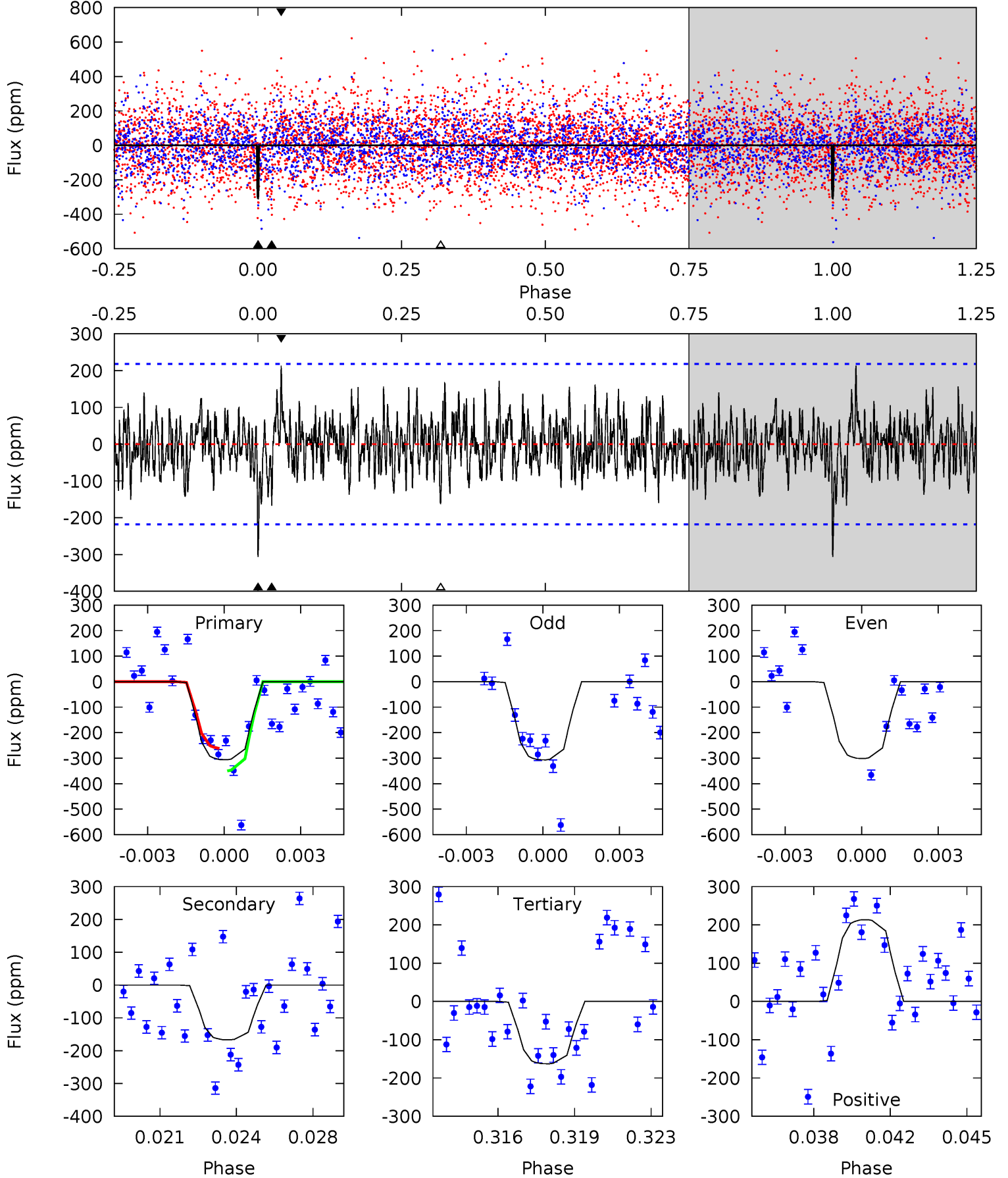


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

002579906-03, P = 25.551405 Days, E = 120.786810 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.33	4.00	3.90	5.11	5.23	2.92	1.40	3.43	2.22	0.09	-1.12	0.06	0.79	0.41	1.06



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-167 ± 42	$7.96^{+8.16}_{-5.42}$	1664^{+119}_{-187}	4998^{+3849}_{-1132}	61^{+505}_{-47}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

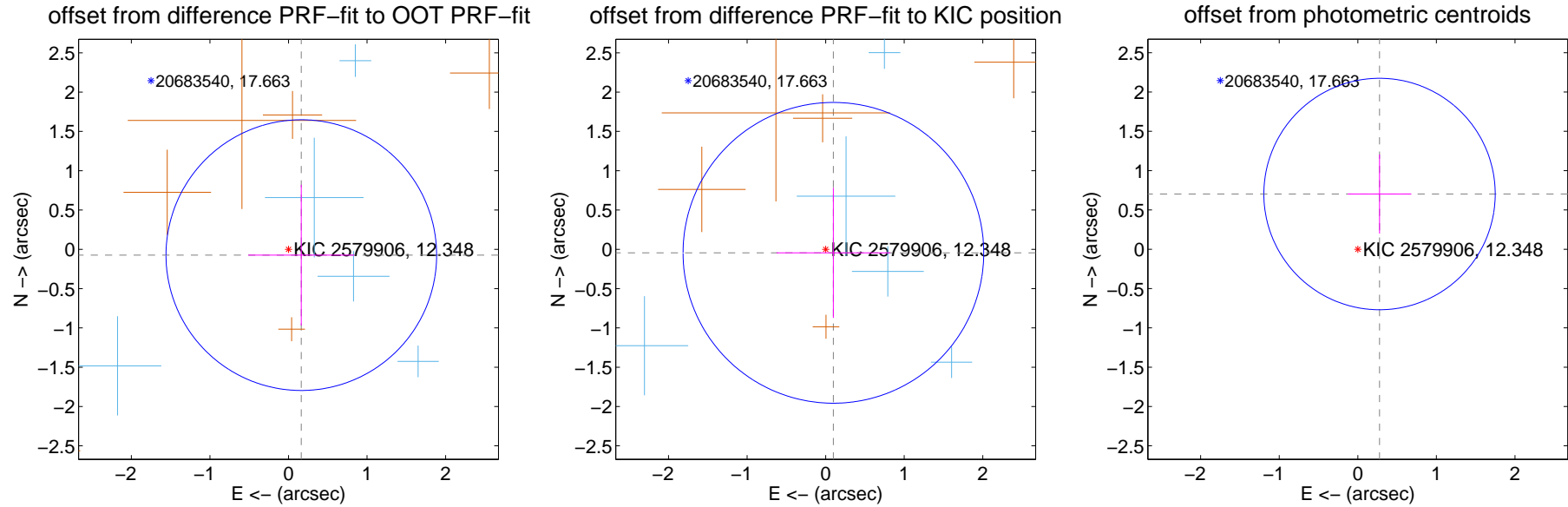
DV Centroid Data

Supplemental centroid analysis for 002579906-03. Kepler magnitude: 12.35. Transit SNR 9.77

There are 5 quarters with good PRF difference image offsets

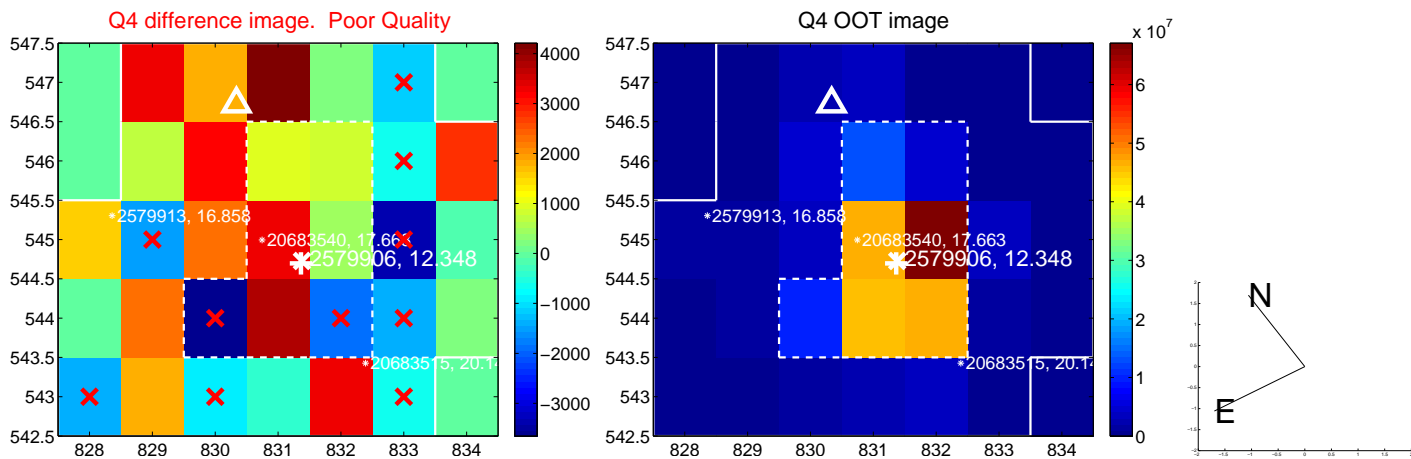
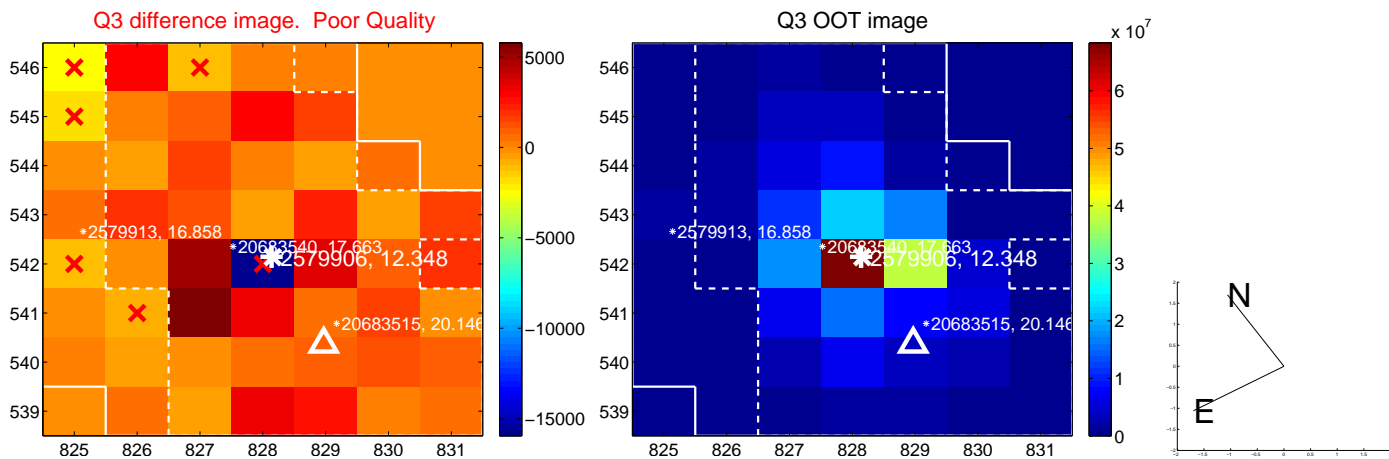
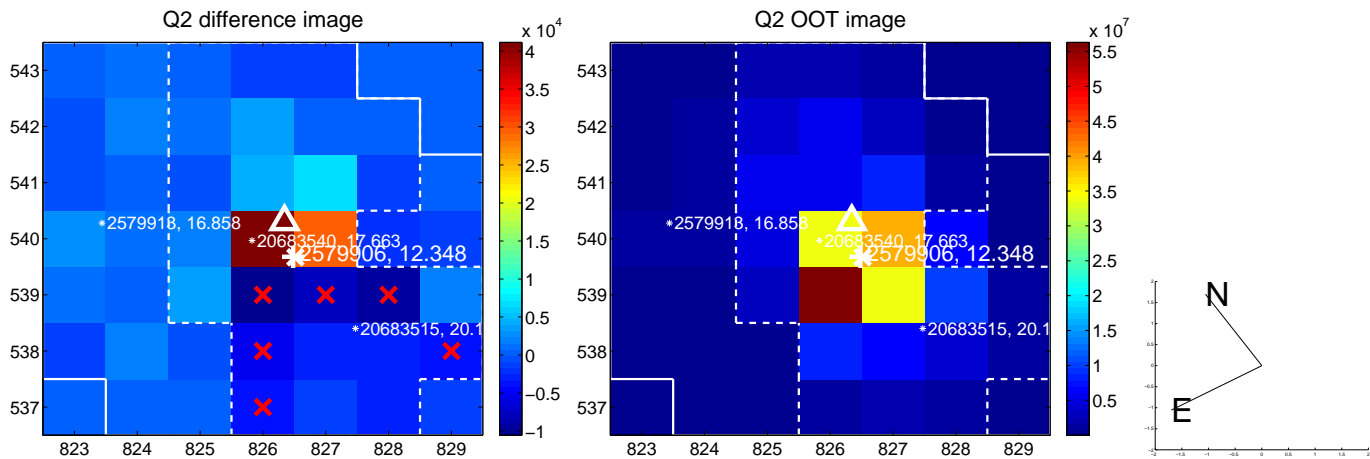
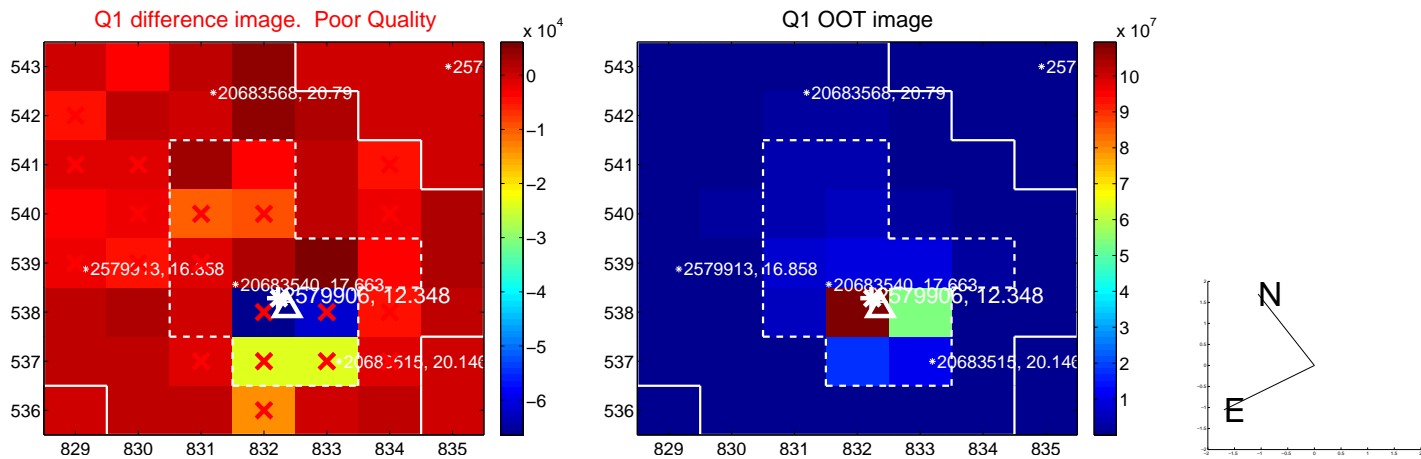
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.574	0.31	-0.163 ± 0.675	-0.074 ± 0.895
PRF-fit source offset from KIC position	0.108 ± 0.638	0.17	-0.099 ± 0.723	-0.045 ± 0.829
photometric centroid source offset	0.75 ± 0.49	1.54	-0.28 ± 0.40	0.70 ± 0.50

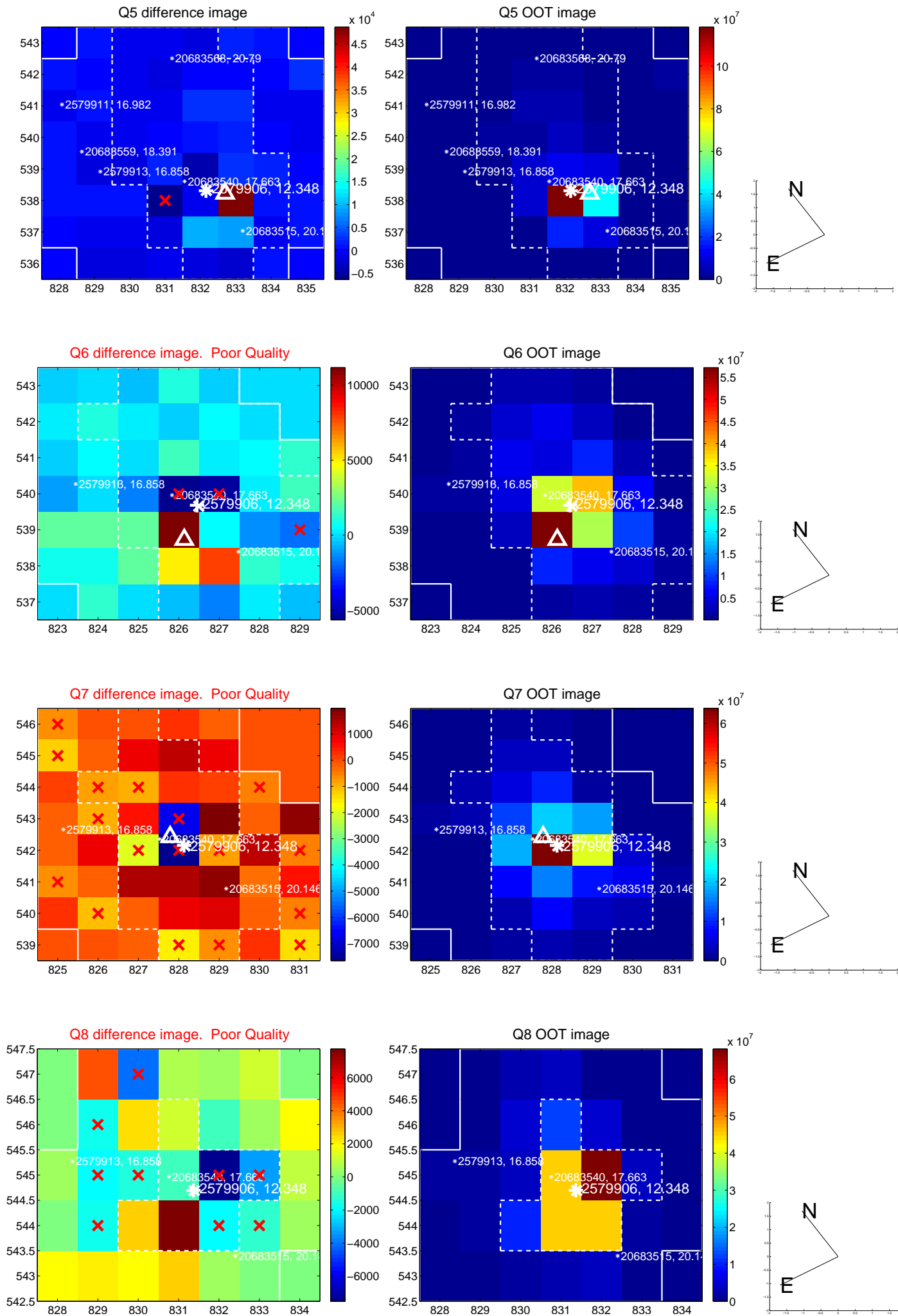


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

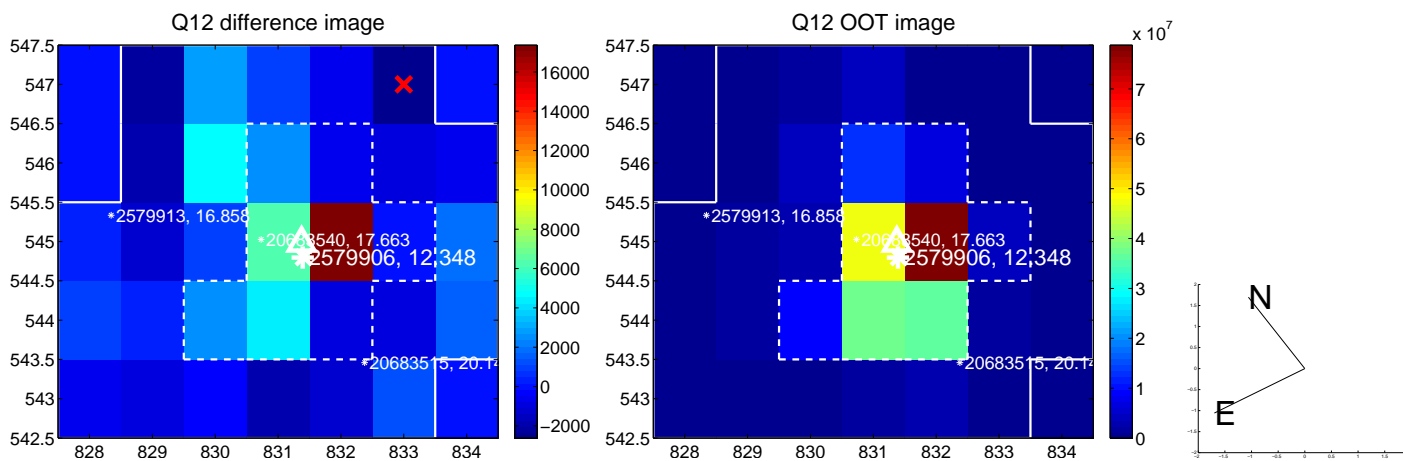
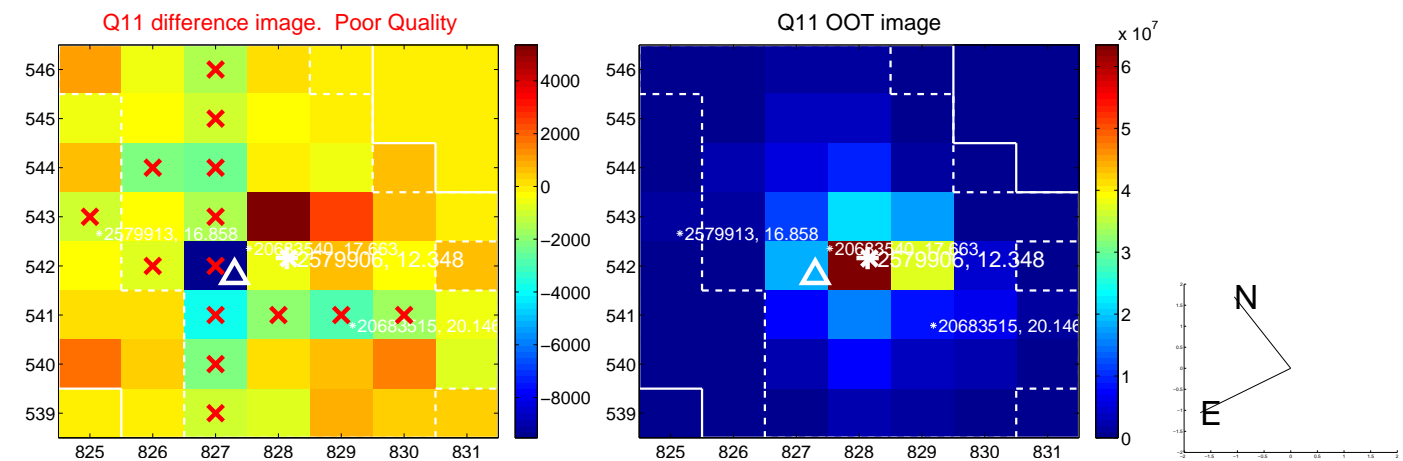
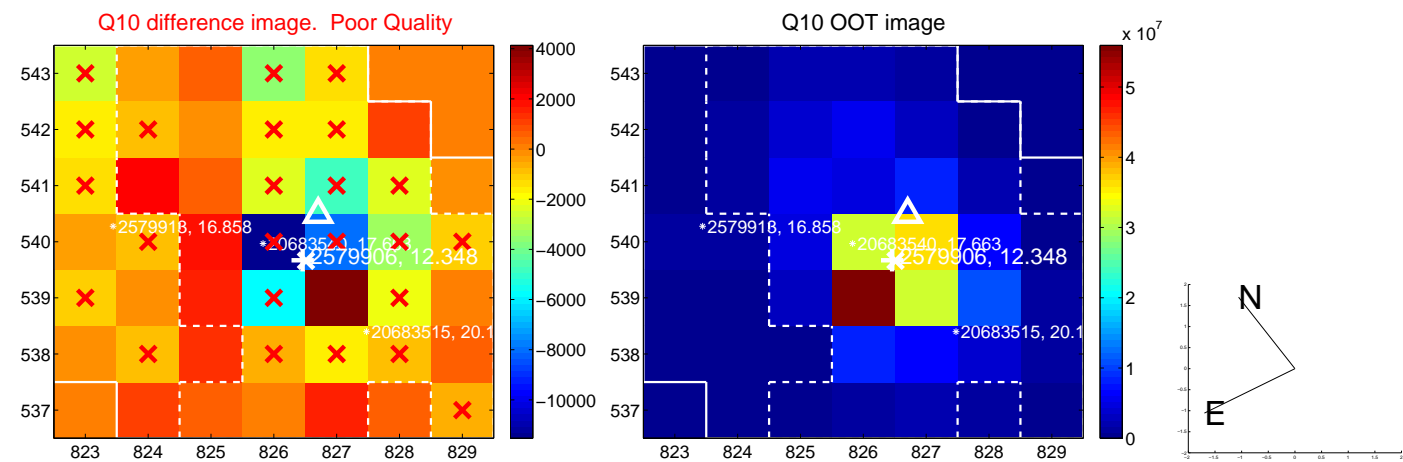
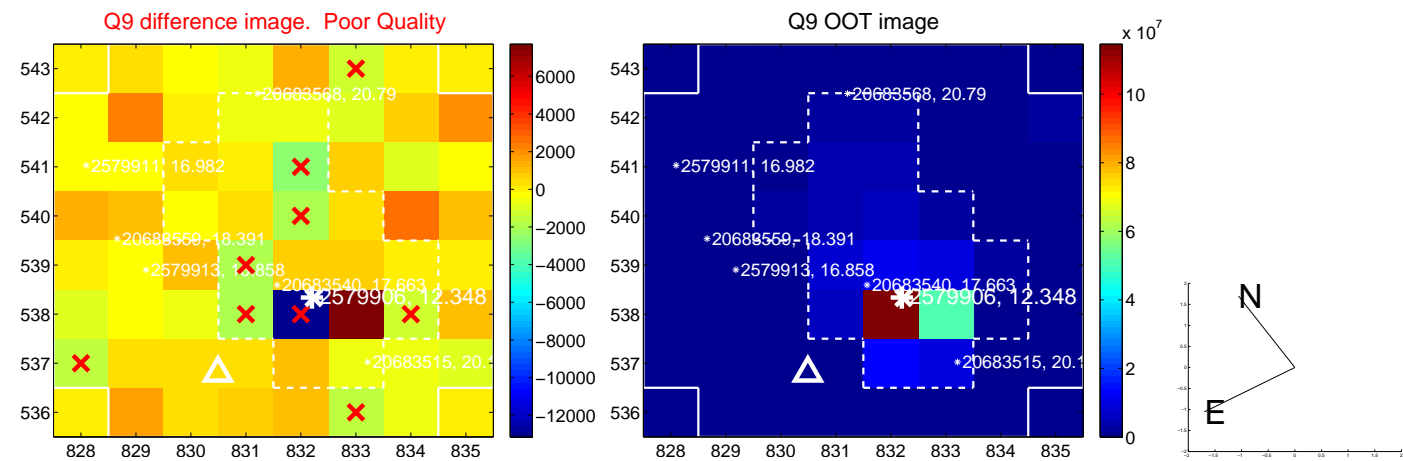
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



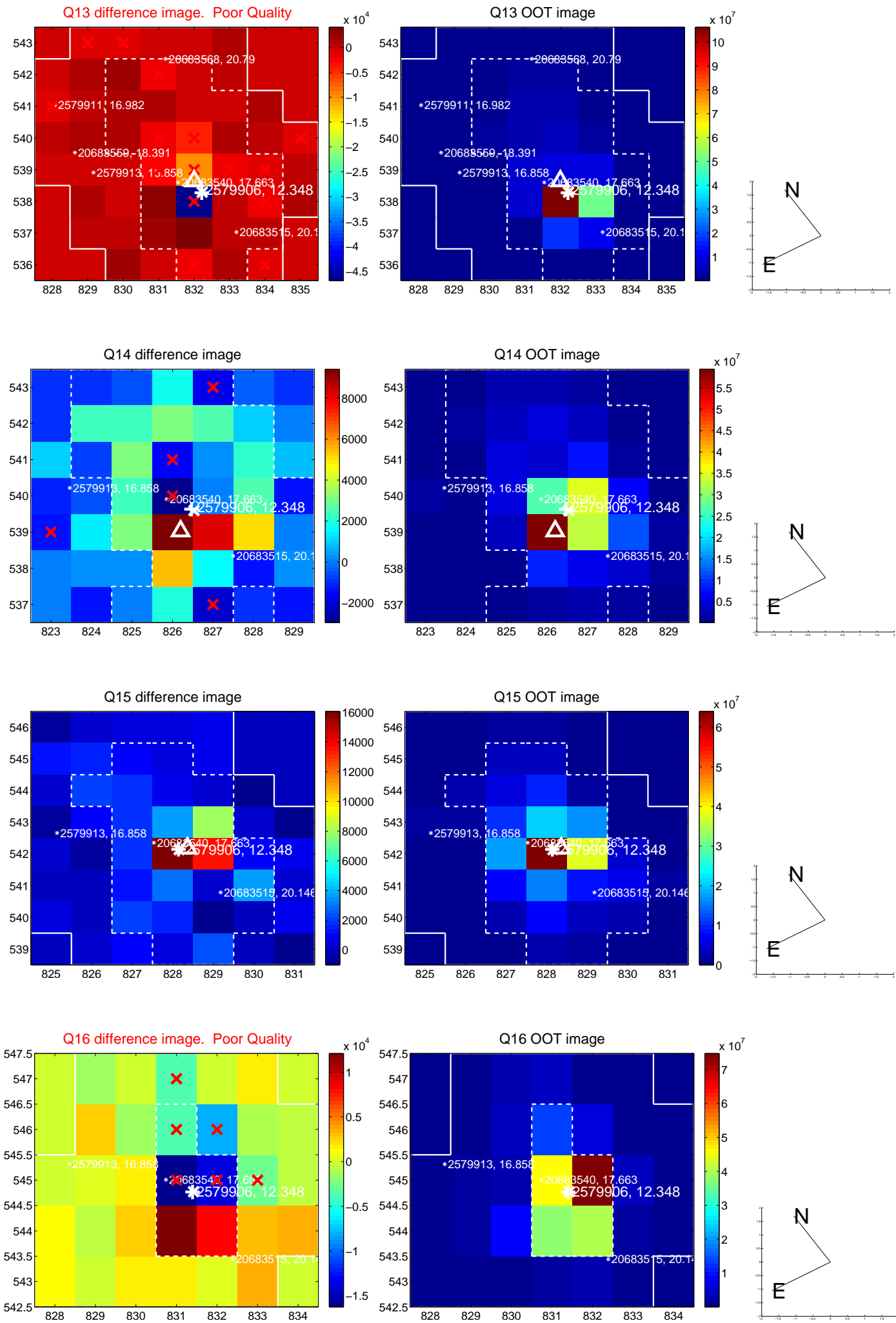
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



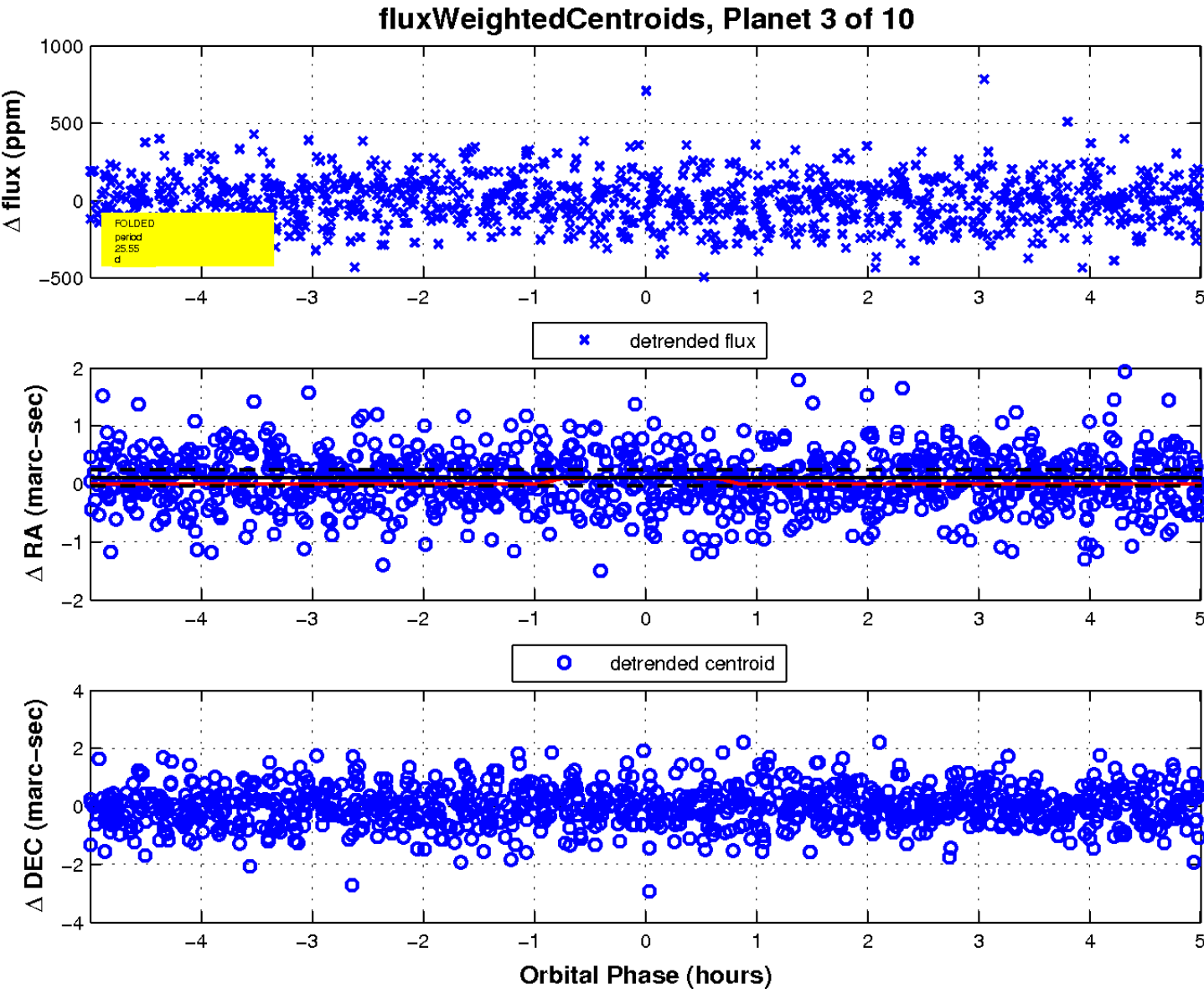
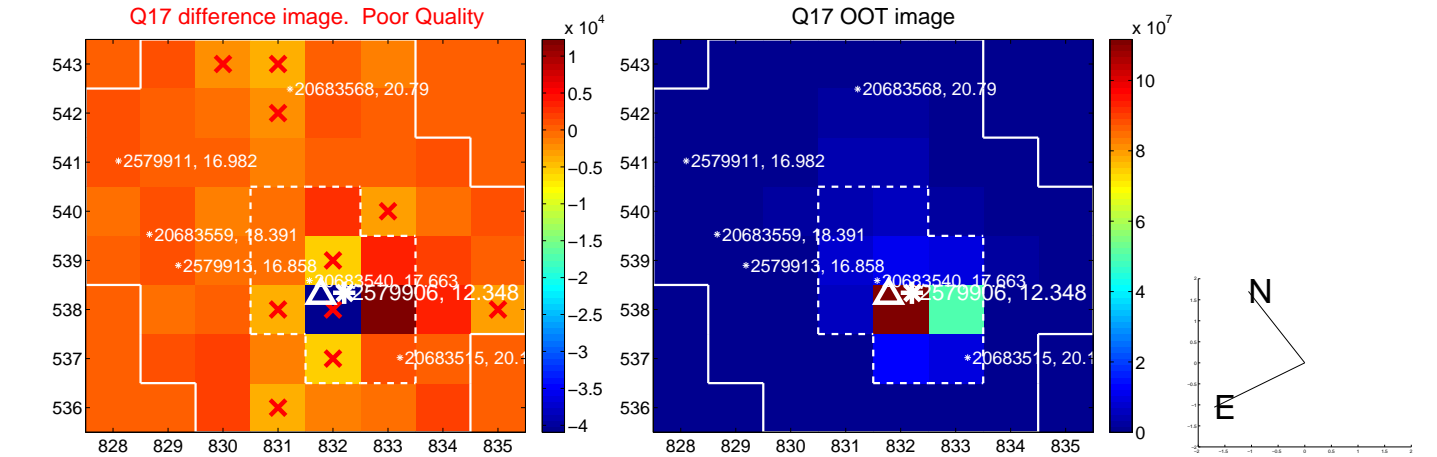
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



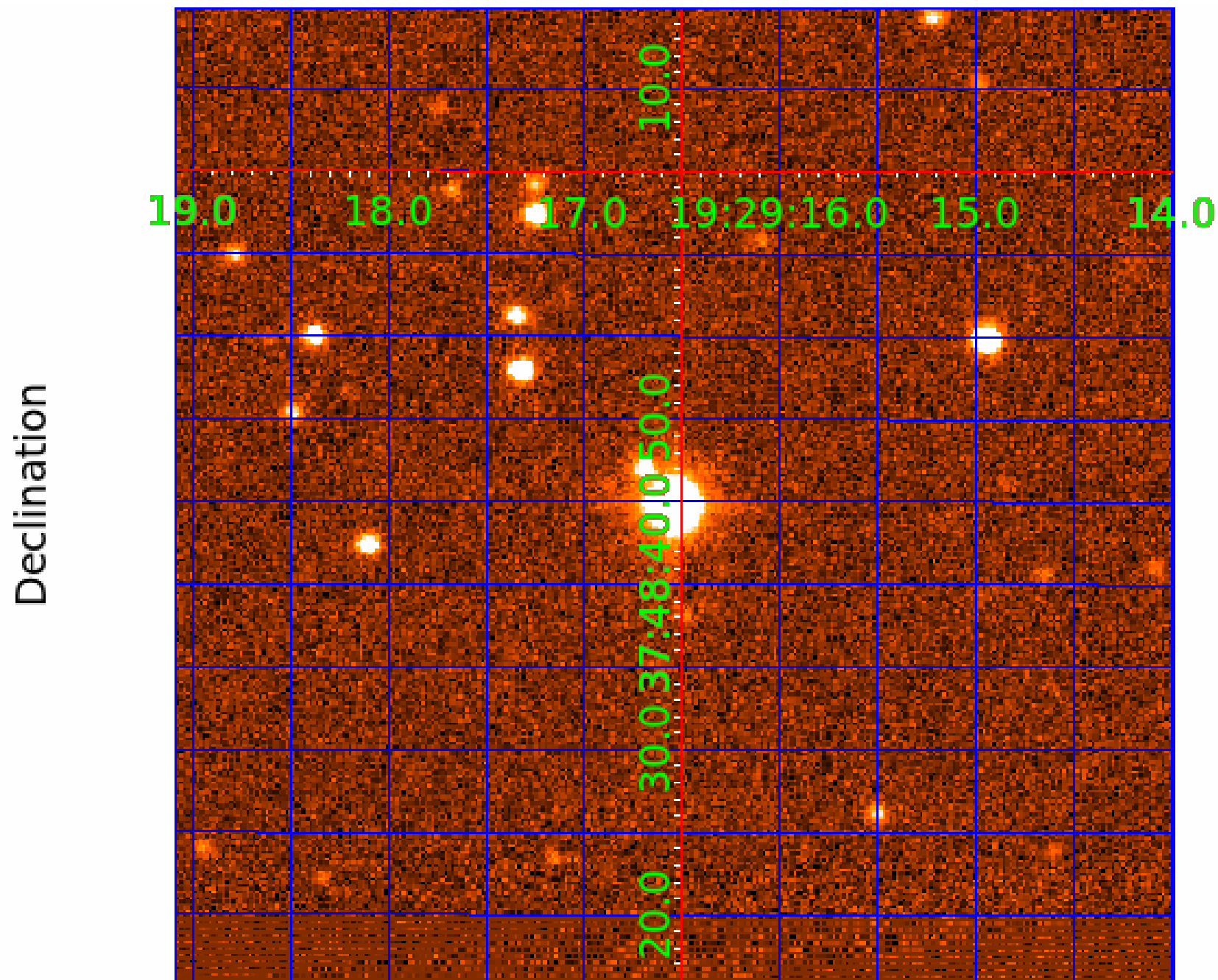
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

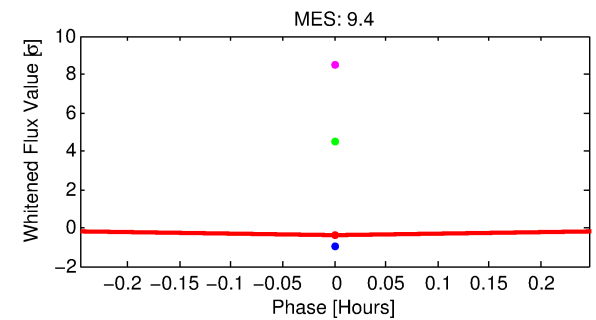
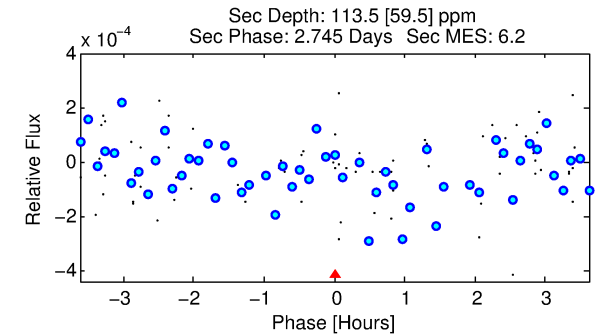
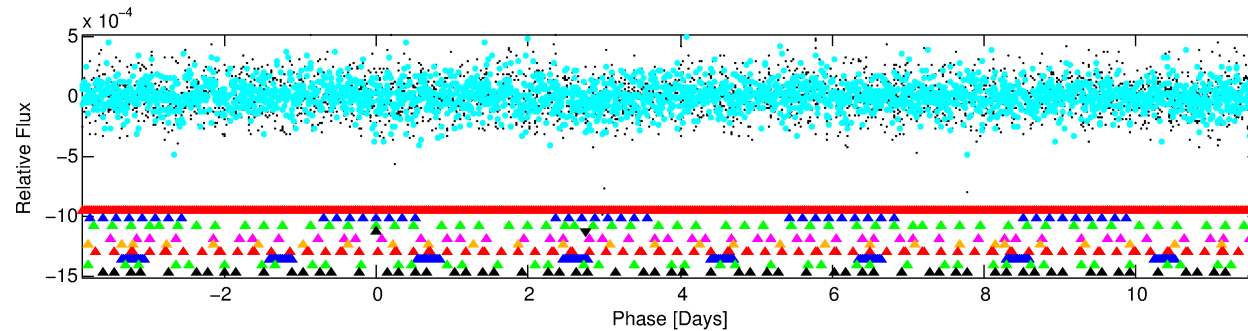
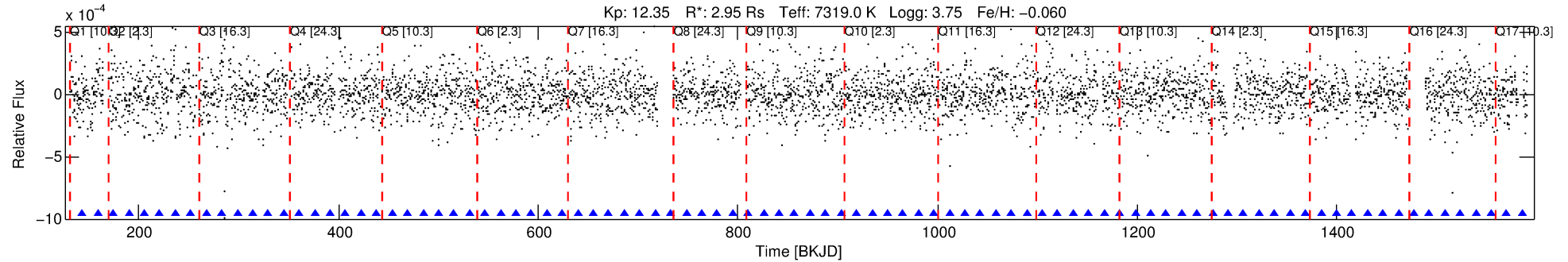
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-04

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 4 of 10 Period: 15.505 d



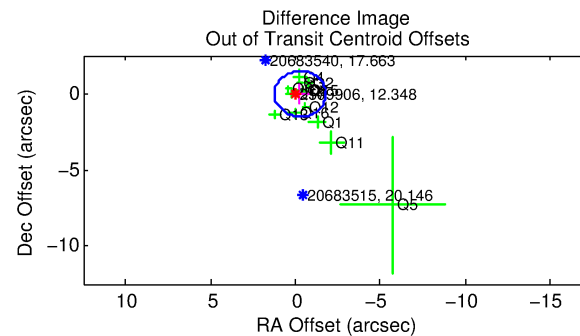
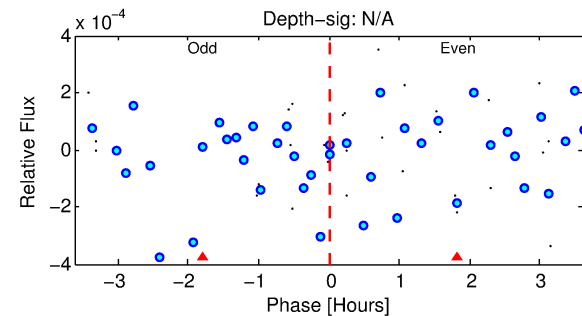
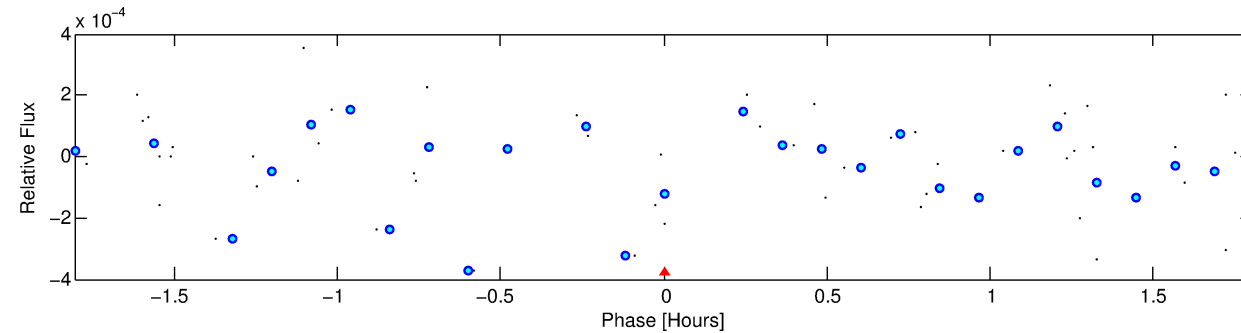
TPS TCE Results:

Period = 15.50454 d
Epoch = 143.9755 BKJD

DV fit results are unavailable

DV Diagnostic Results:

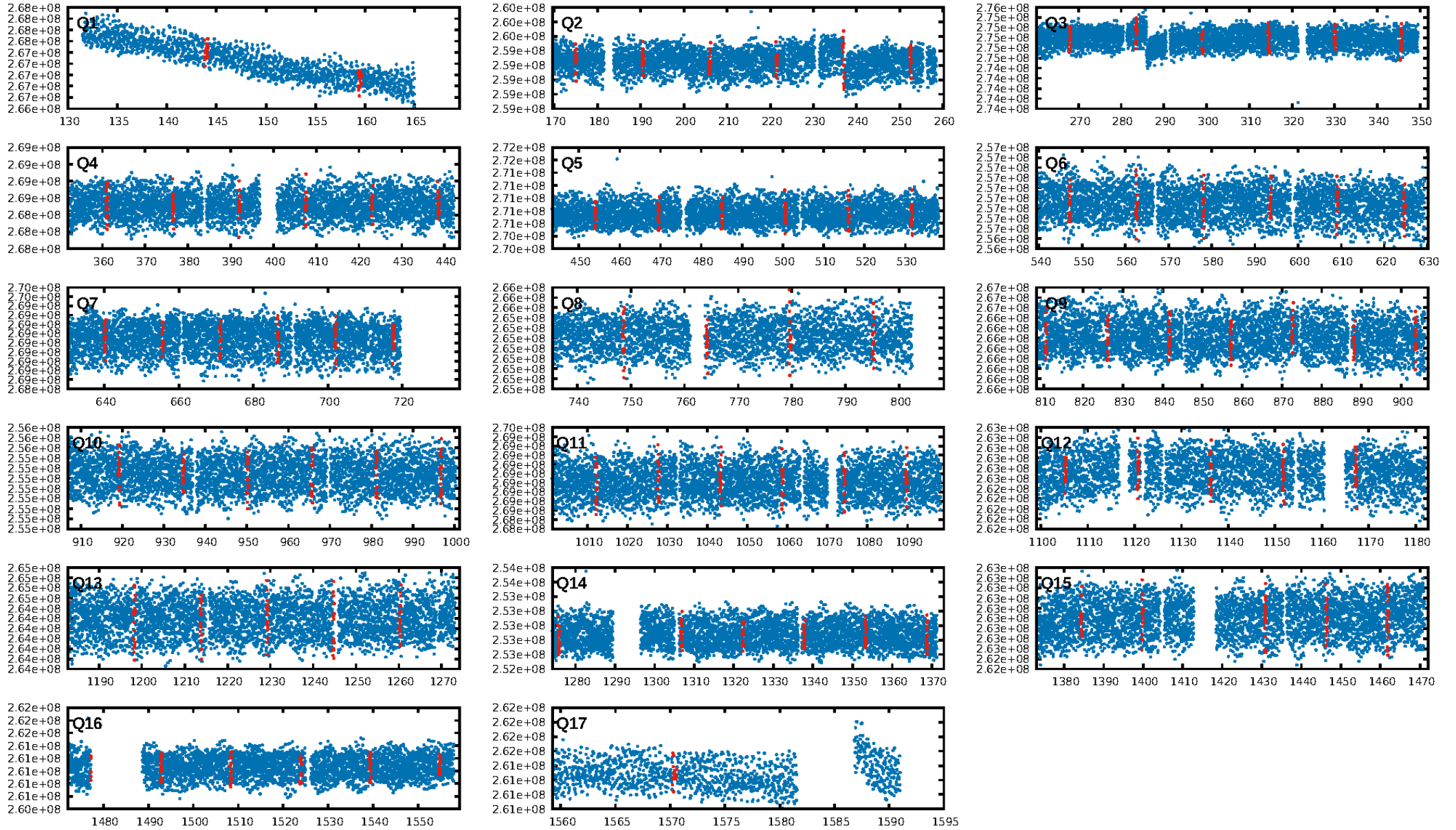
ShortPeriod-sig: 100.0% [5.80 σ]
LongPeriod-sig: 100.0% [29.77 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: -8.664
Centroid-sig: N/A
Centroid-so: 0.241 arcsec [0.96 σ]
OotOffset-rm: 0.283 arcsec [0.56 σ]
KicOffset-rm: 0.234 arcsec [0.83 σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.00 [0/16]



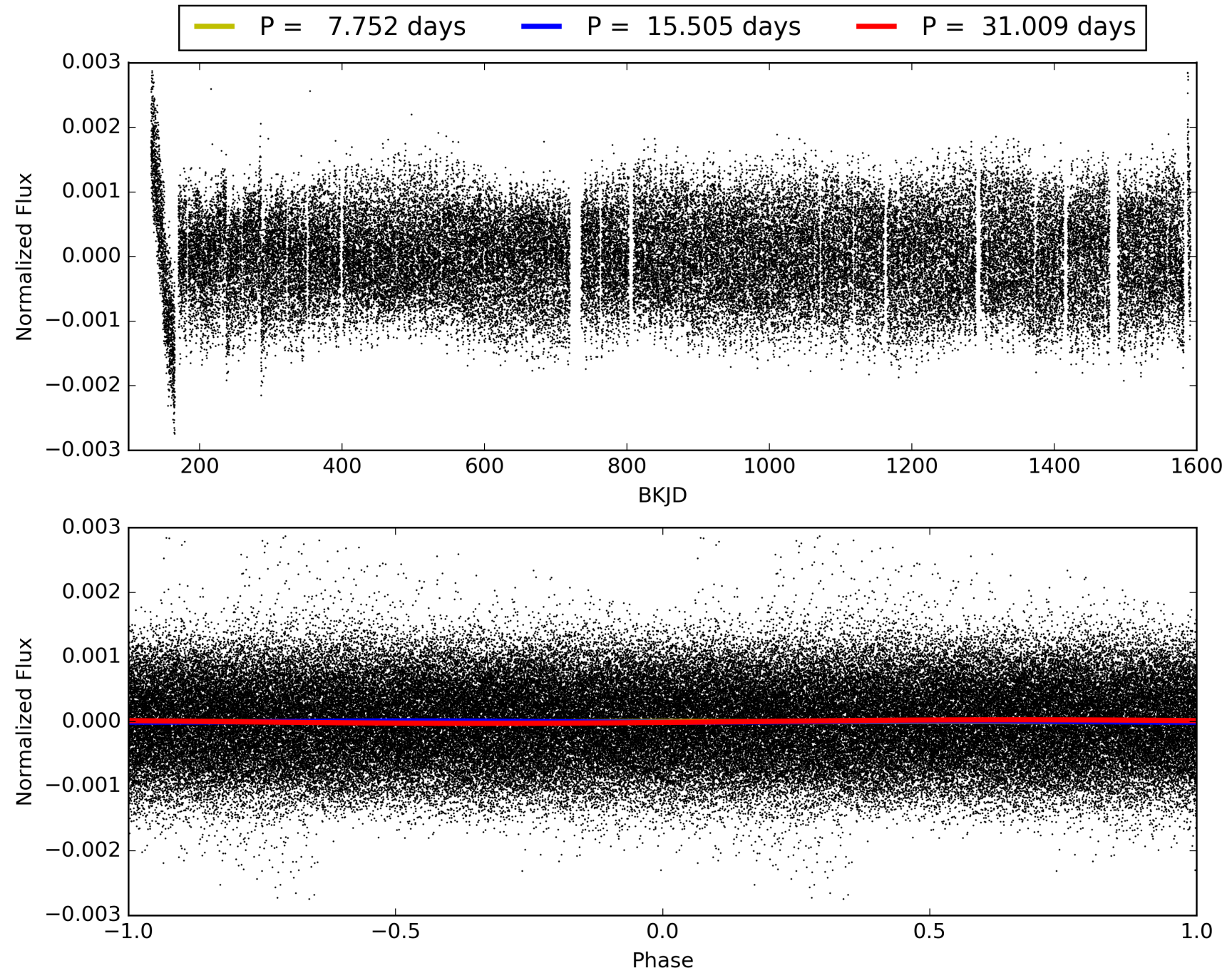
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:30 Z

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

TCE 002579906-04, PDC Light Curves

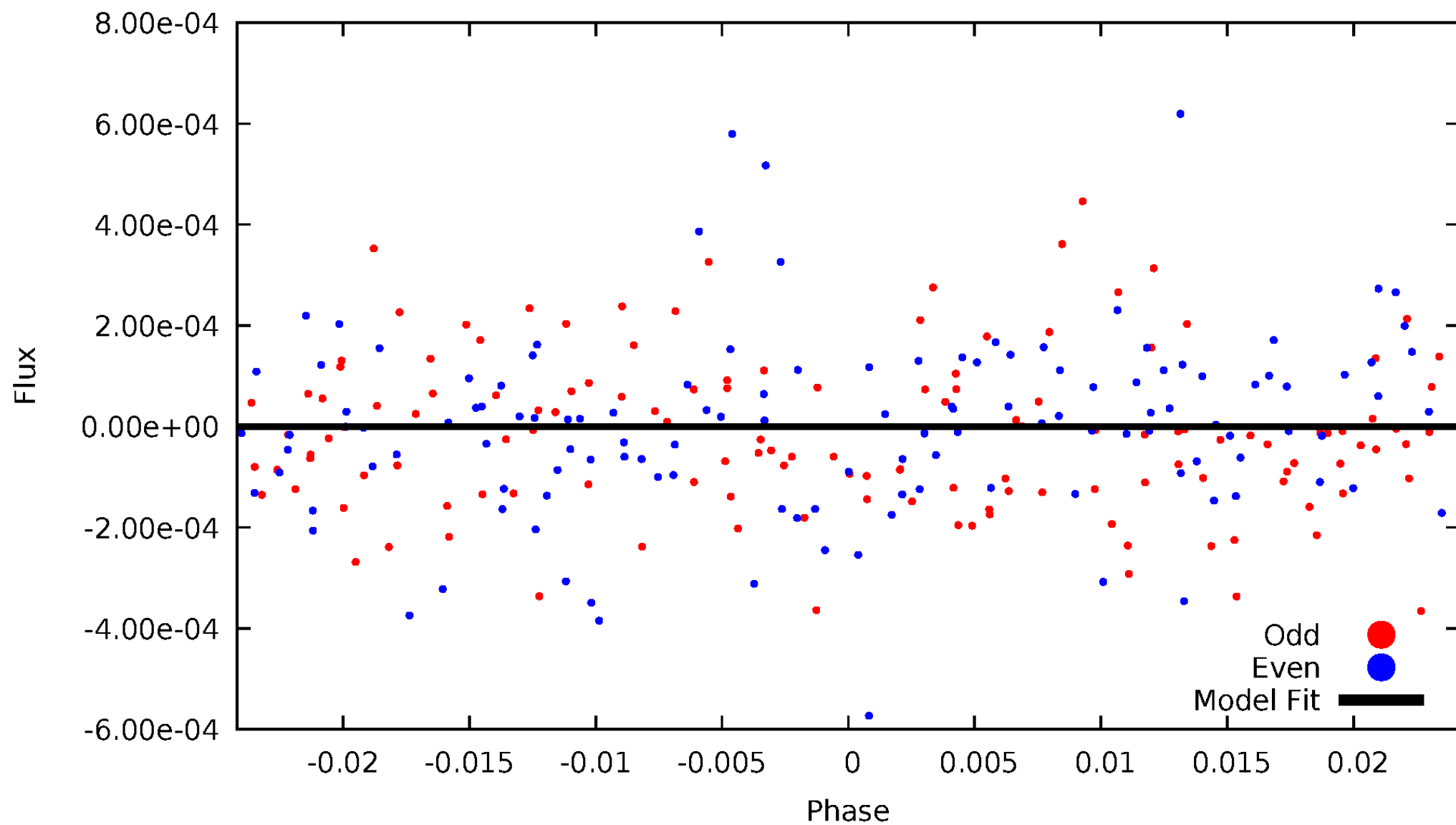


TCE 002579906-04



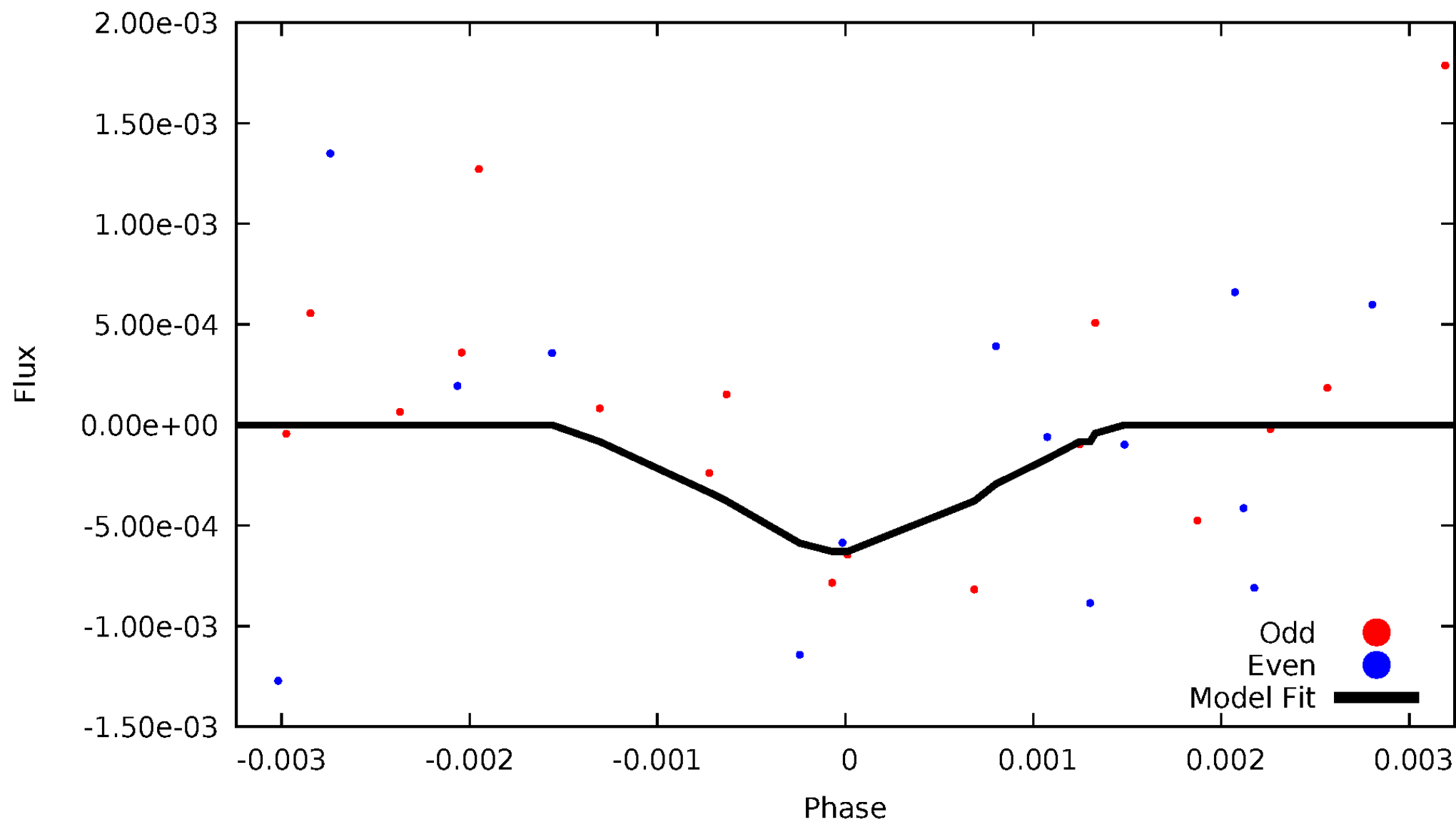
DV Odd/Even

TCE 002579906-04



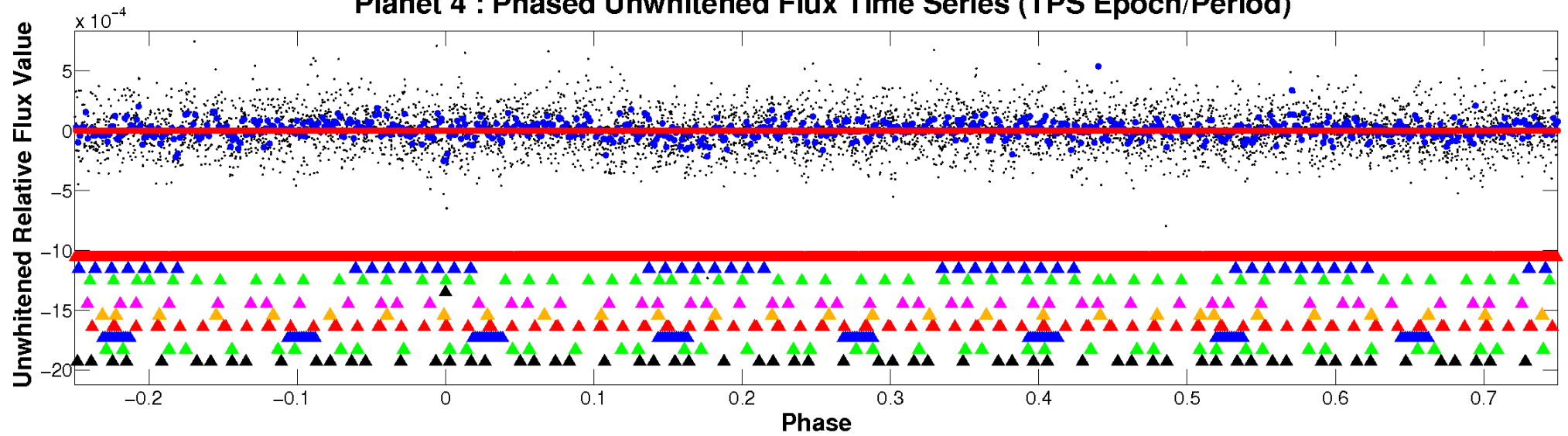
ALT Odd/Even

TCE 002579906-04

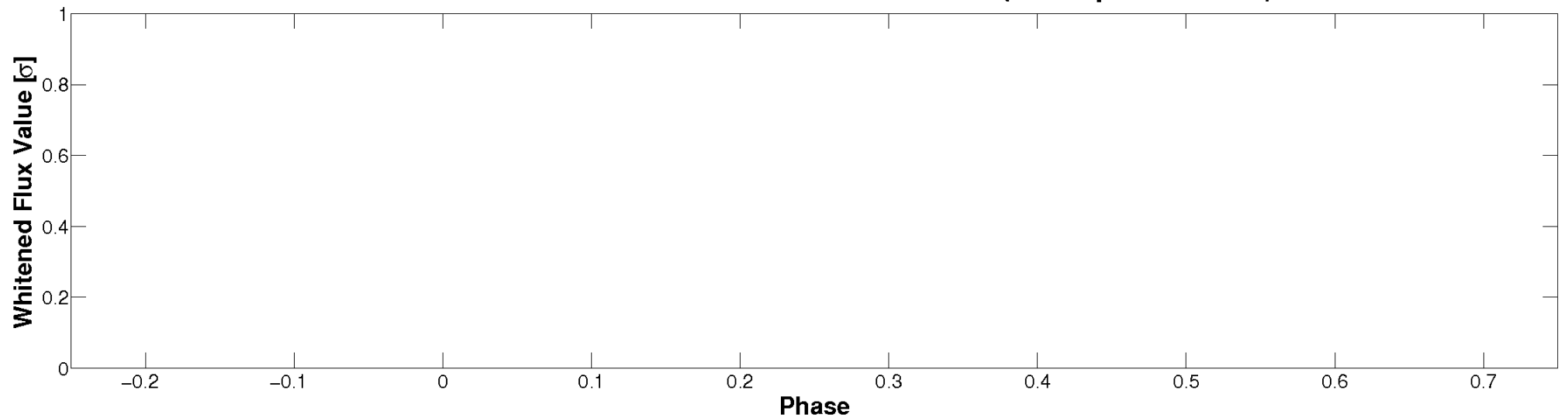


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

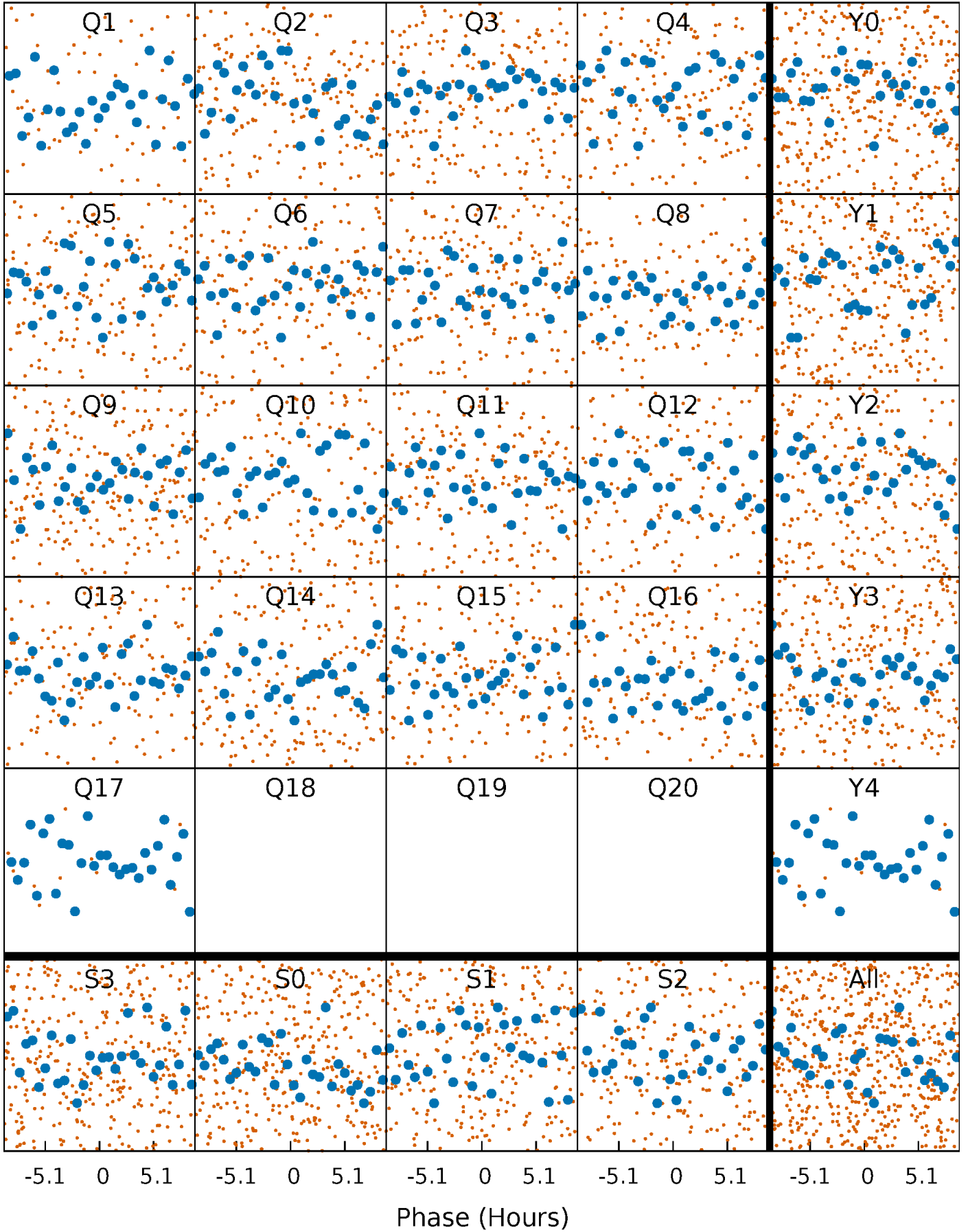


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



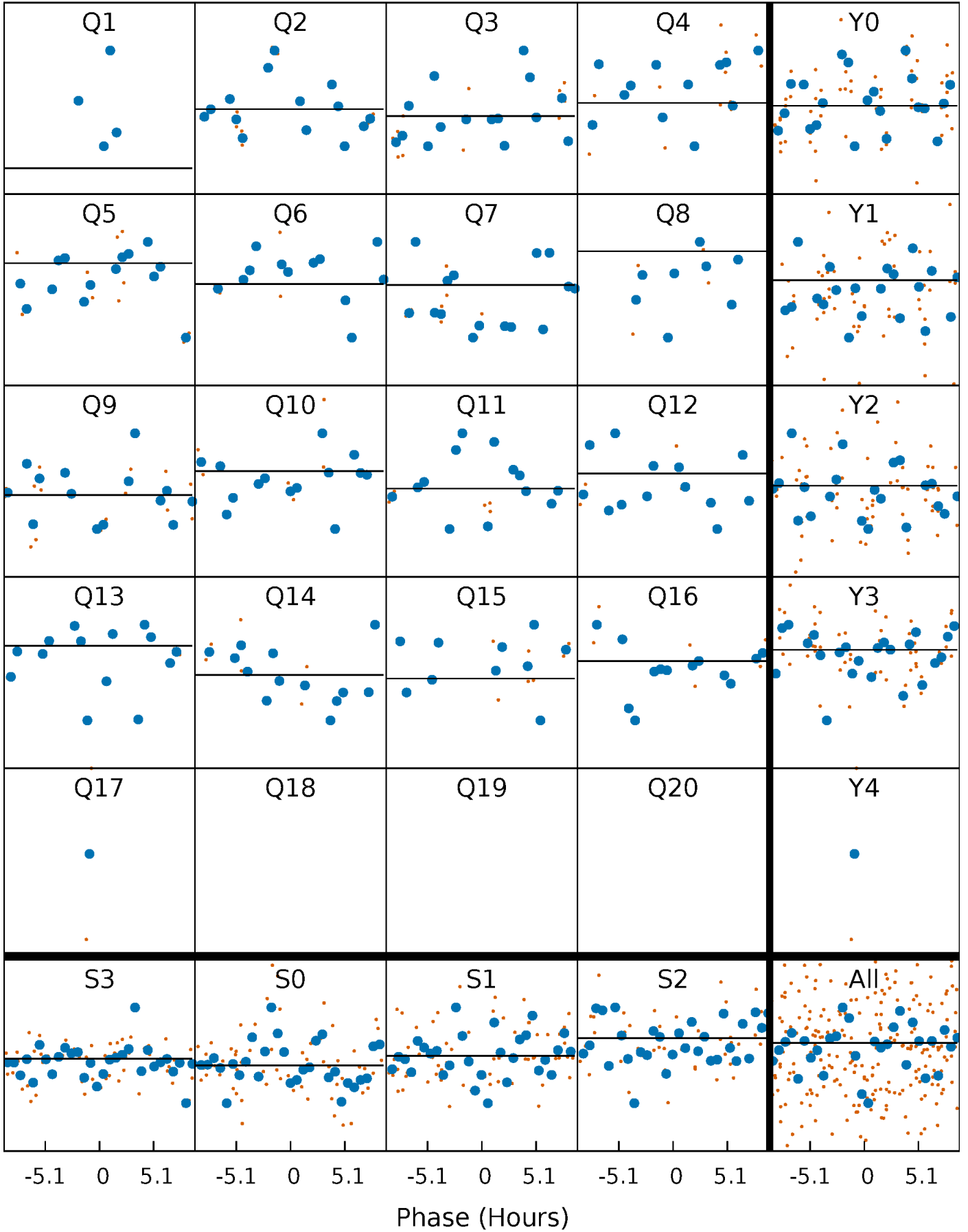
PDC Quarter-Phased Transit Curves

TCE 002579906-04 P= 15.504544 Days $T_0=143.975465$ (BKJD)



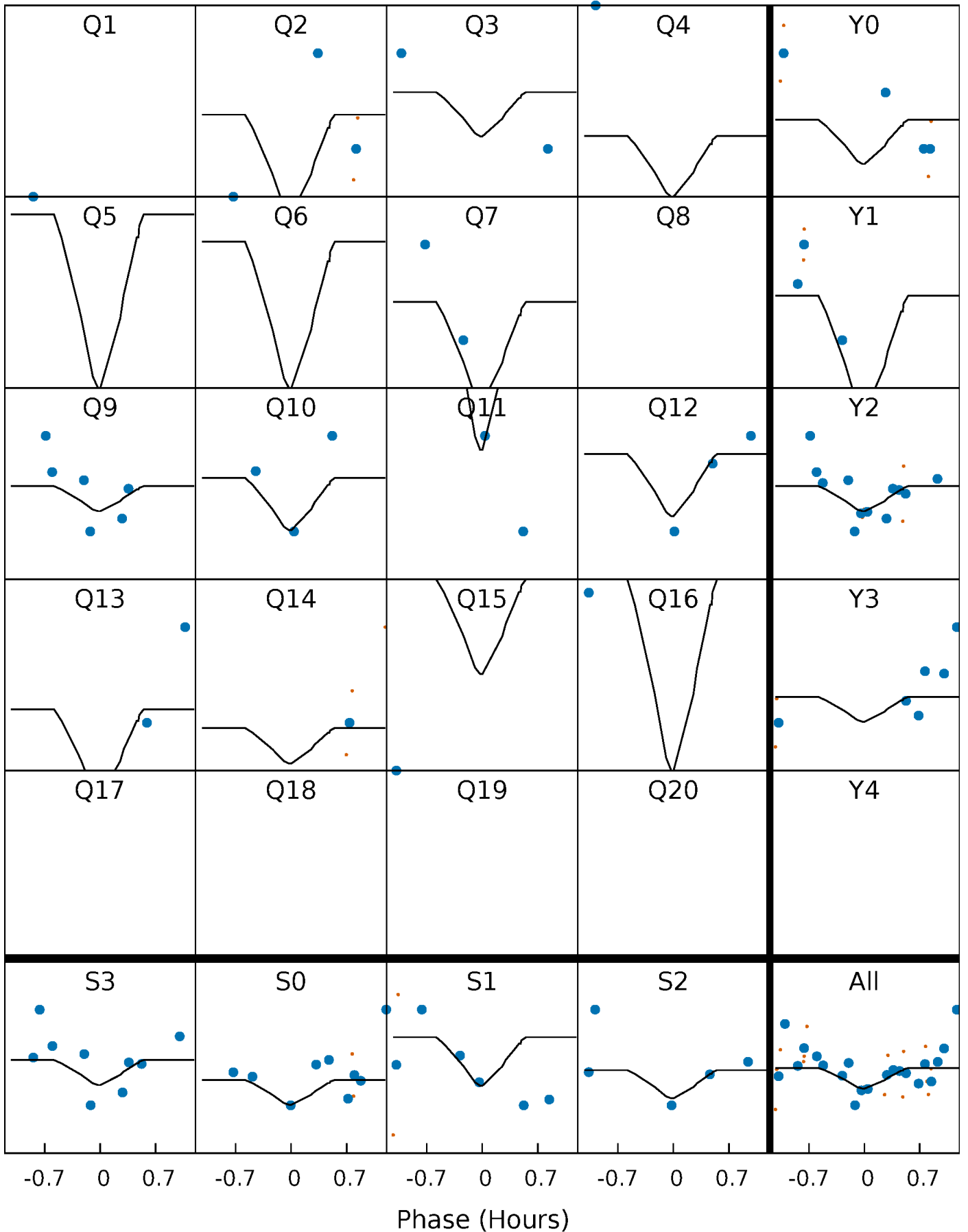
DV Quarter-Phased Transit Curves

TCE 002579906-04 $P = 15.504544$ Days $T_0 = 143.975465$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

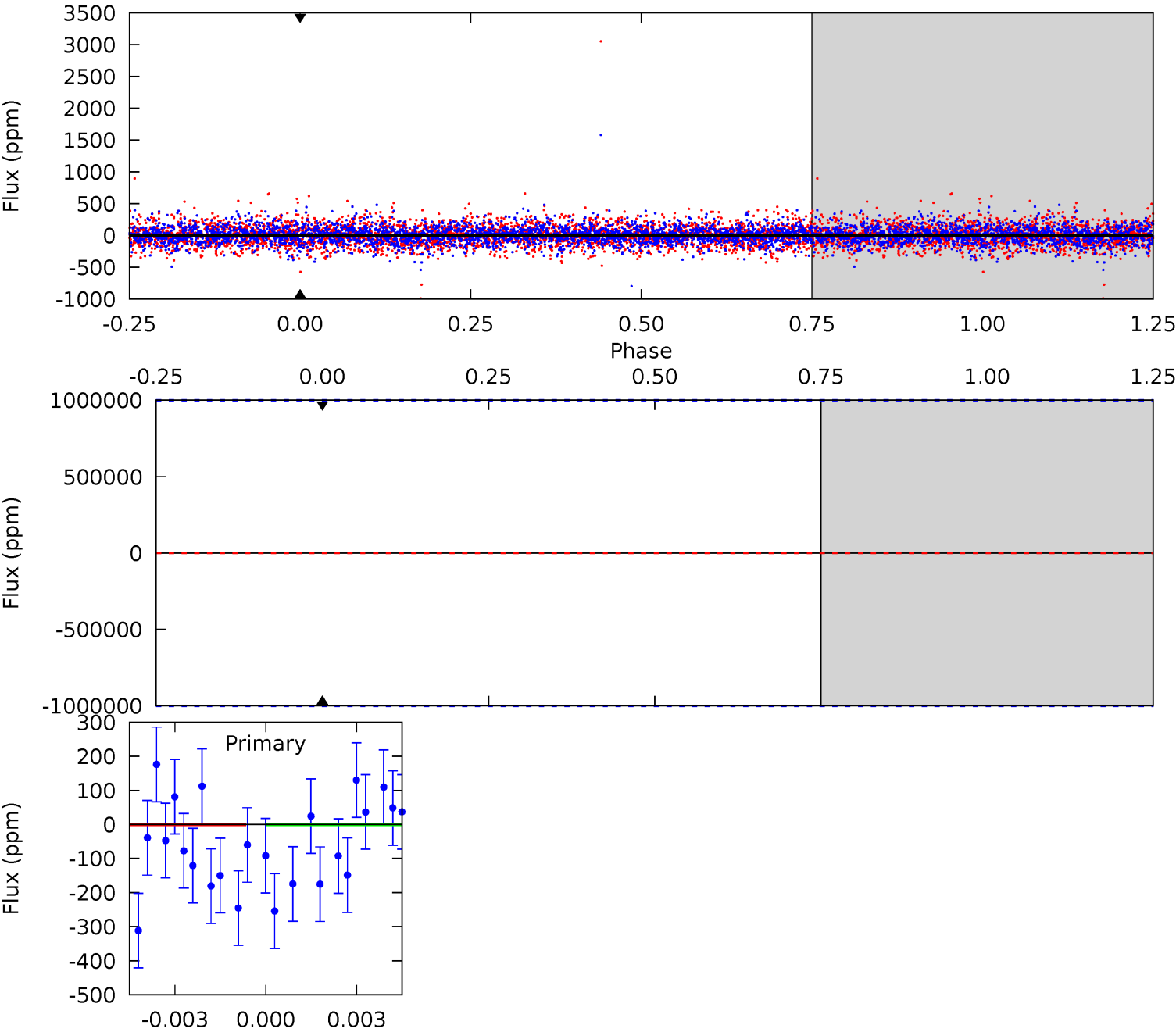
TCE 002579906-04 P= 15.504544 Days $T_0=143.730315$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-04, P = 15.504544 Days, E = 128.470921 Days

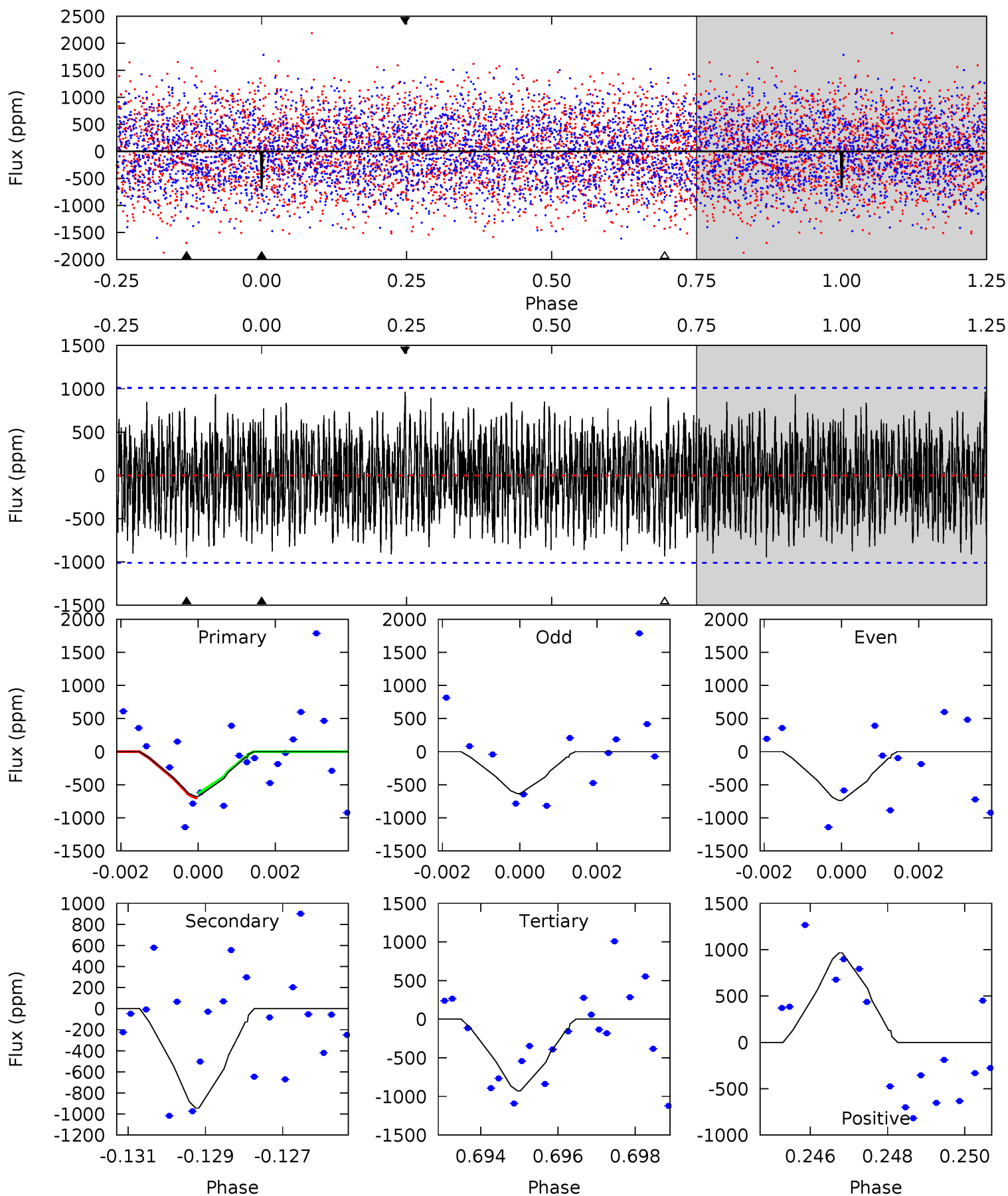
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

002579906-04, P = 15.504544 Days, E = 128.225771 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.56	4.98	4.88	5.08	5.32	3.08	1.91	-1.32	-1.52	0.09	-0.11	0.27	1.09	0.51	0.17



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$21.52^{+22.46}_{-15.15}$	1958^{+143}_{-211}	-4975^{+44913}_{-35669}	$-31.922^{+5167.692}_{-4827.356}$
Alt.	-945 ± 190	$22.17^{+22.94}_{-16.34}$	1947^{+151}_{-229}	4669^{+4585}_{-1036}	22^{+291}_{-16}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

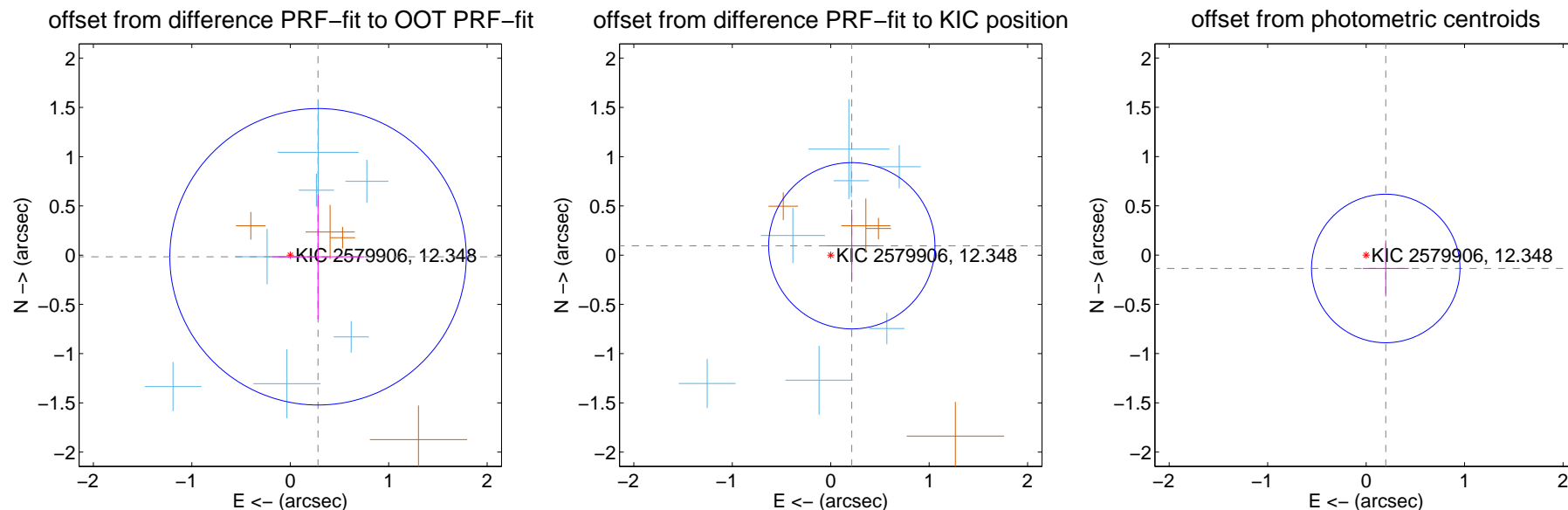
DV Centroid Data

Supplemental centroid analysis for 002579906-04. Kepler magnitude: 12.35. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

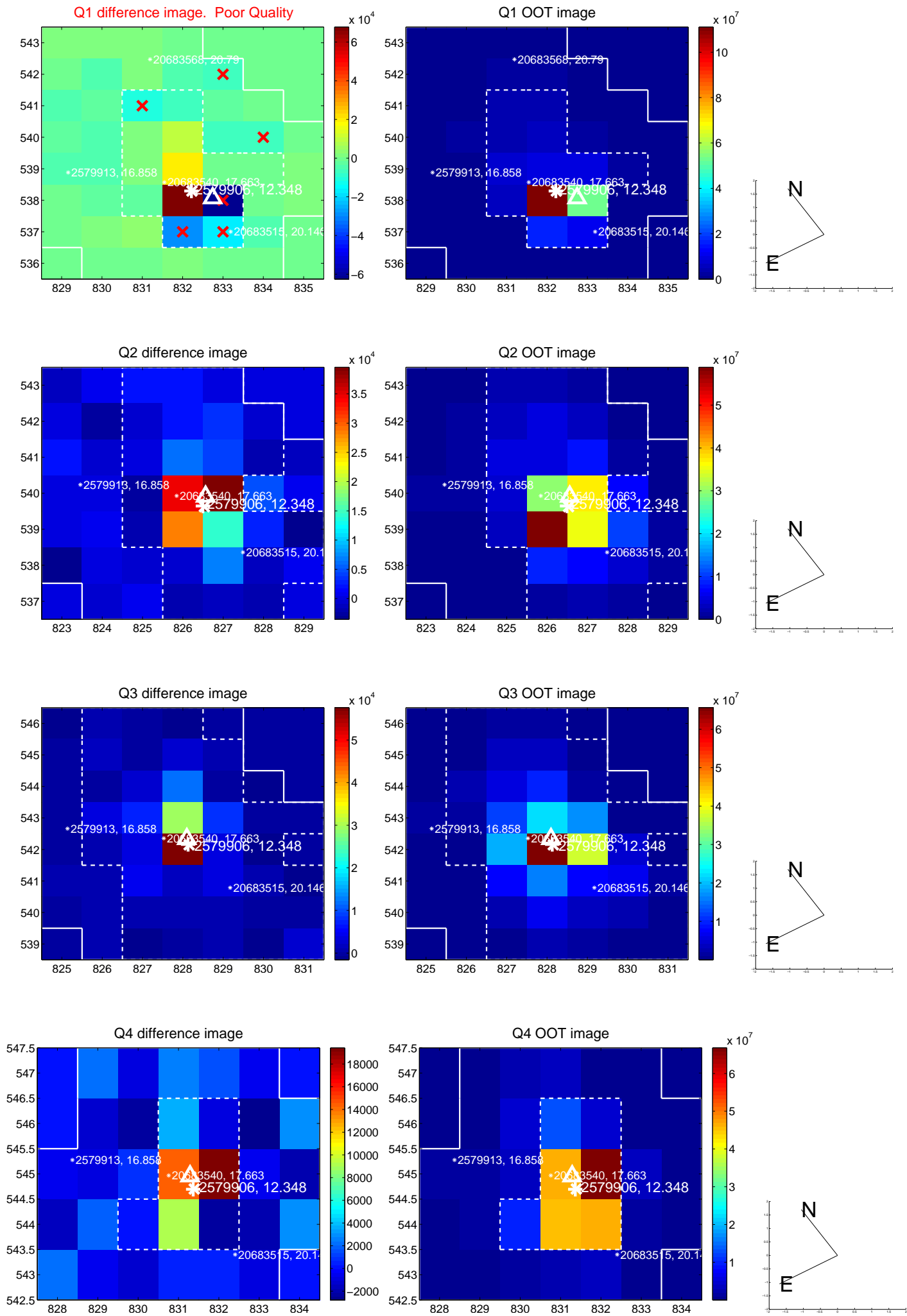
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.283 ± 0.502	0.56	-0.282 ± 0.470	-0.016 ± 0.635
PRF-fit source offset from KIC position	0.234 ± 0.281	0.83	-0.214 ± 0.261	0.095 ± 0.367
photometric centroid source offset	0.24 ± 0.25	0.96	-0.20 ± 0.23	-0.14 ± 0.28

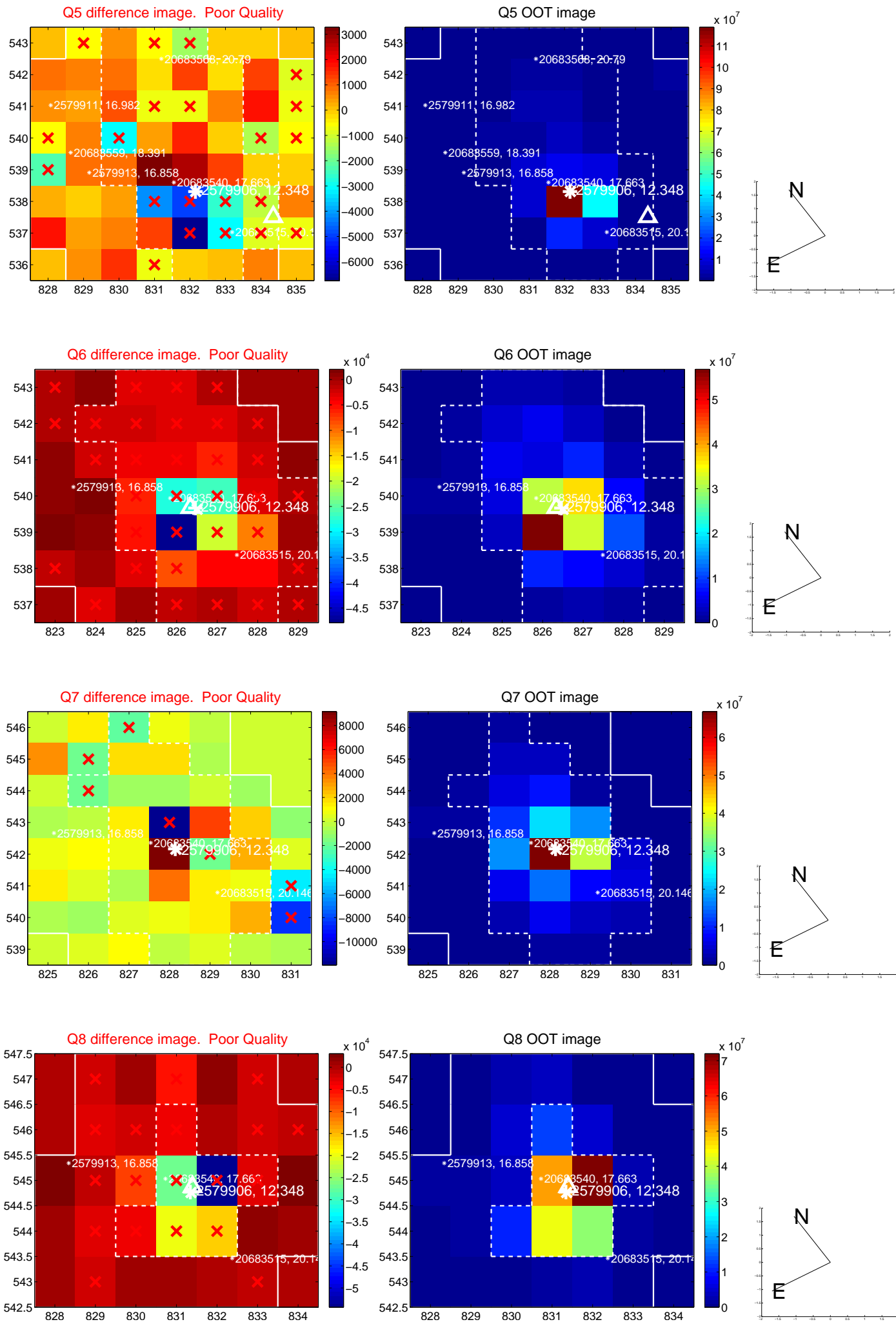


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

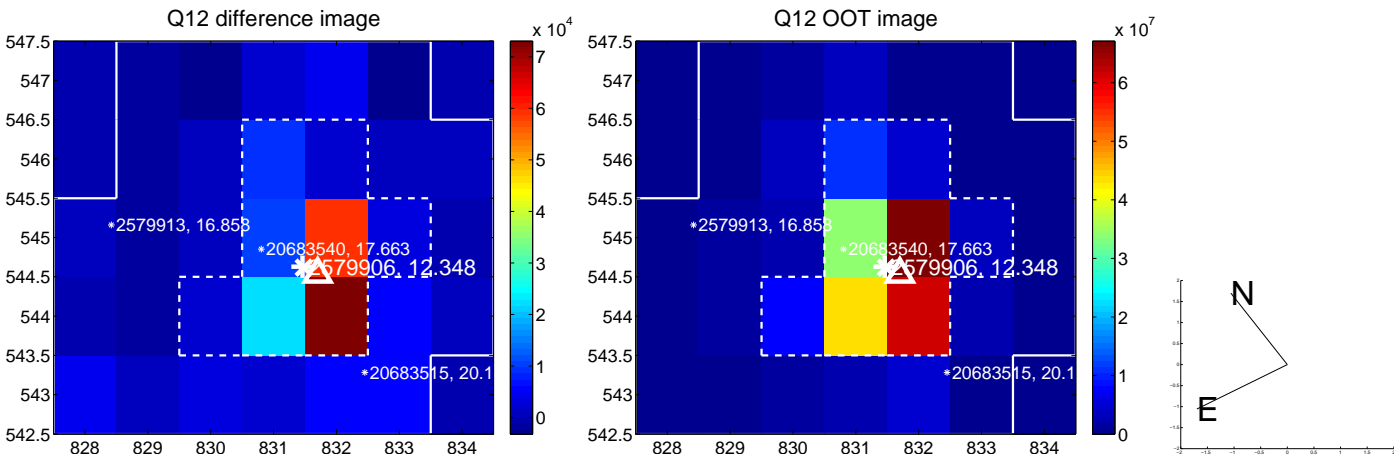
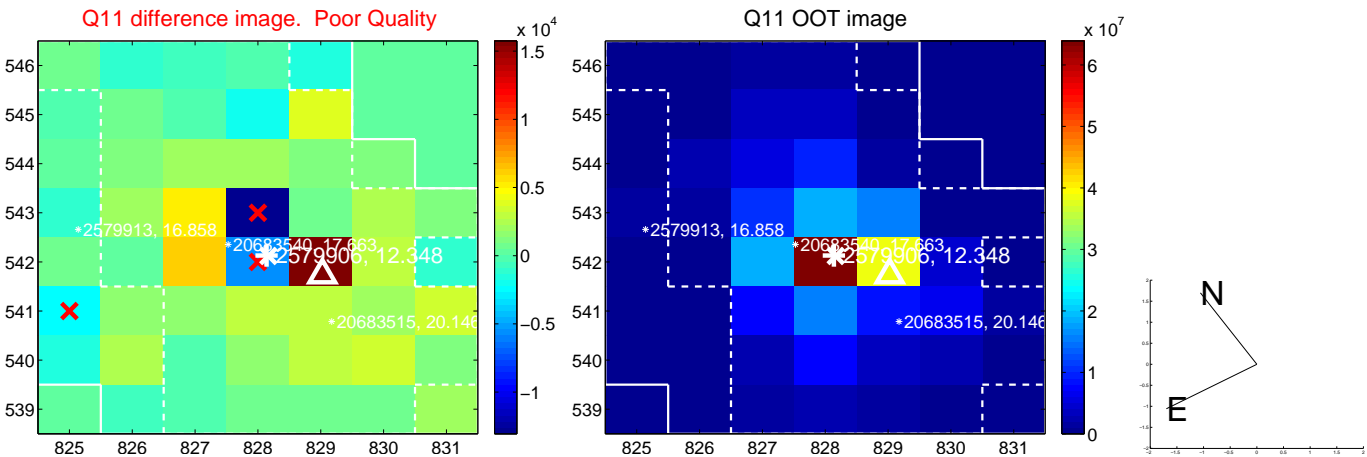
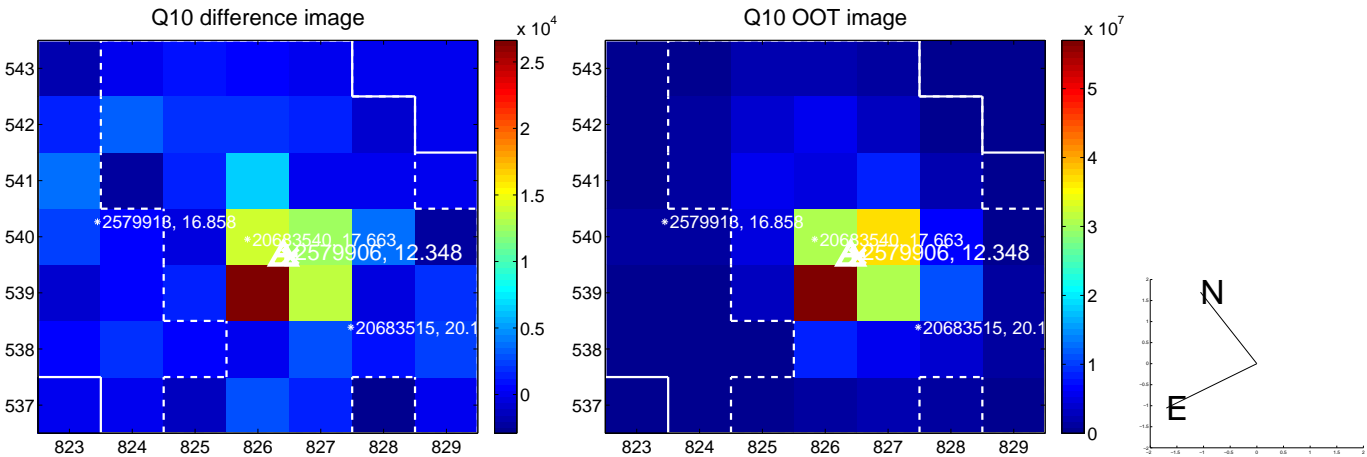
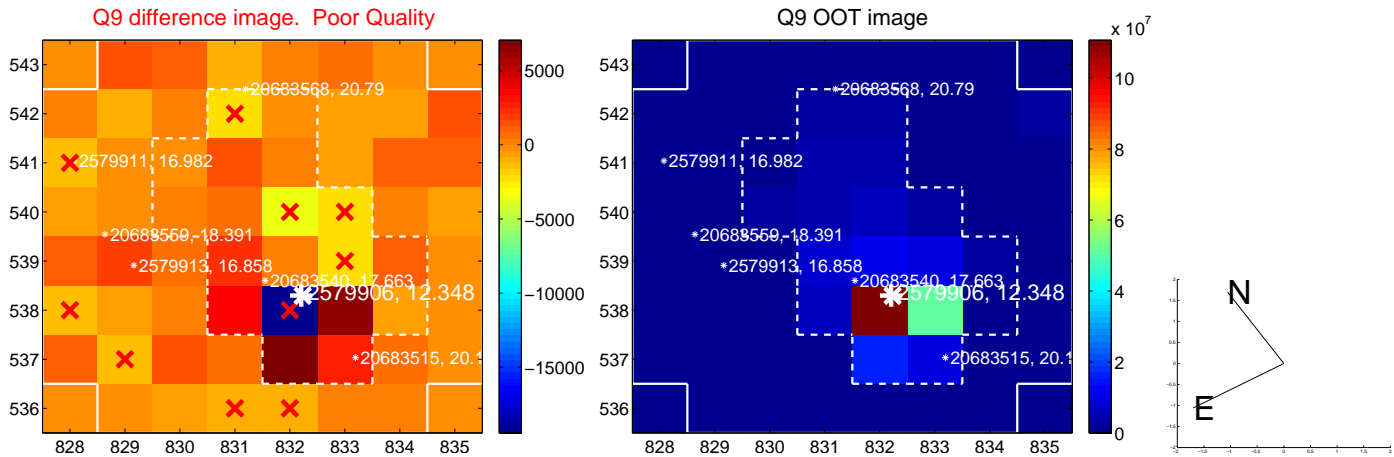
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



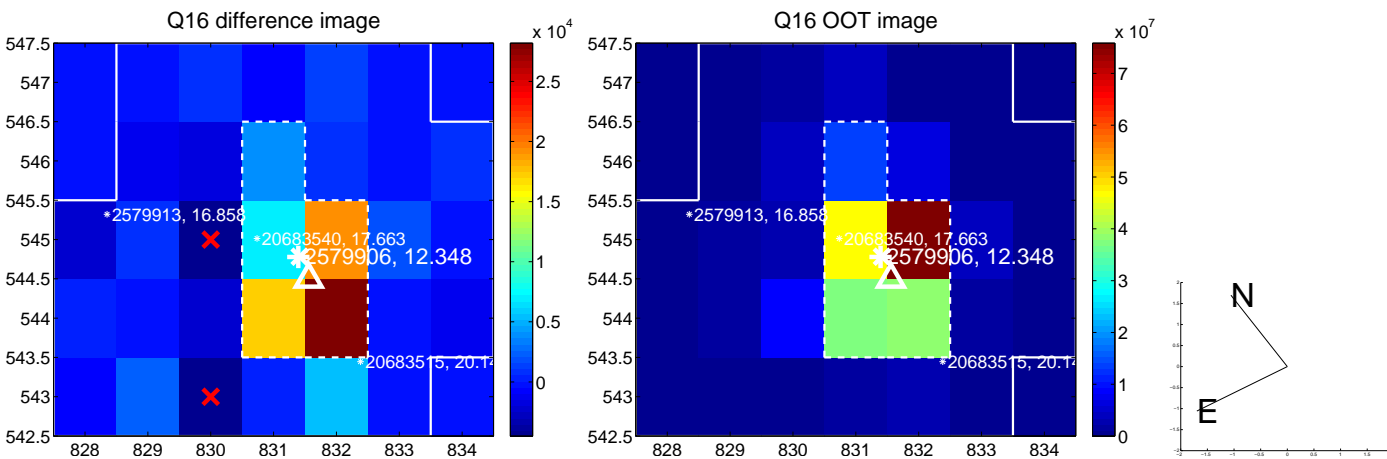
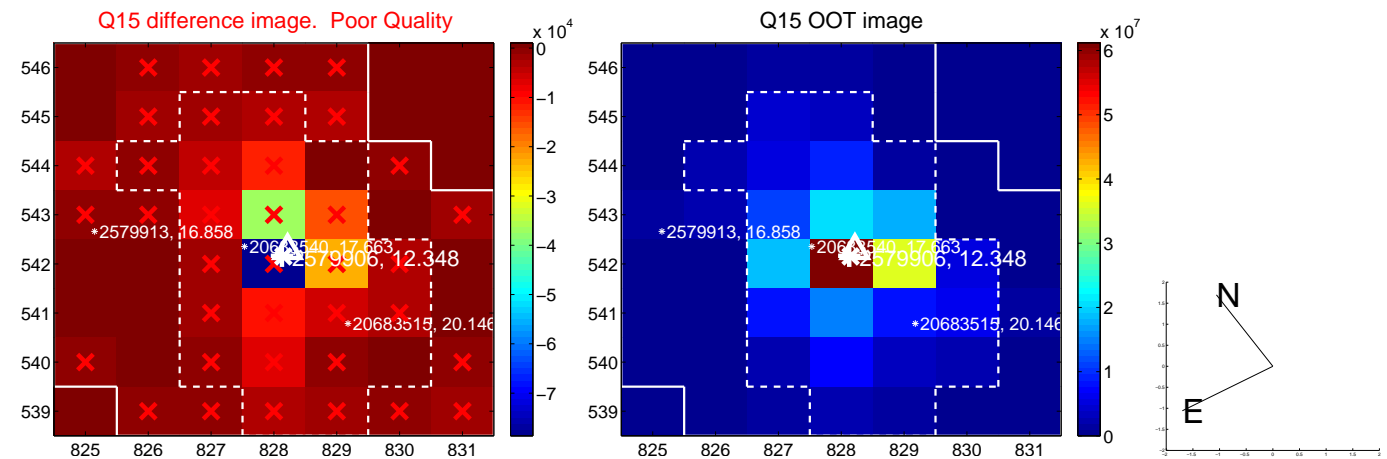
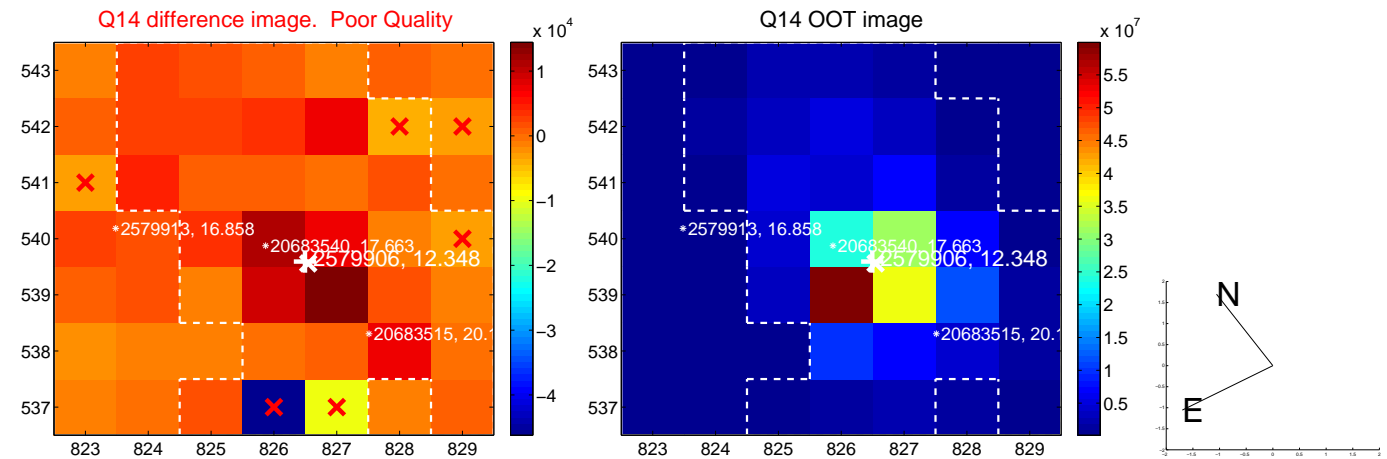
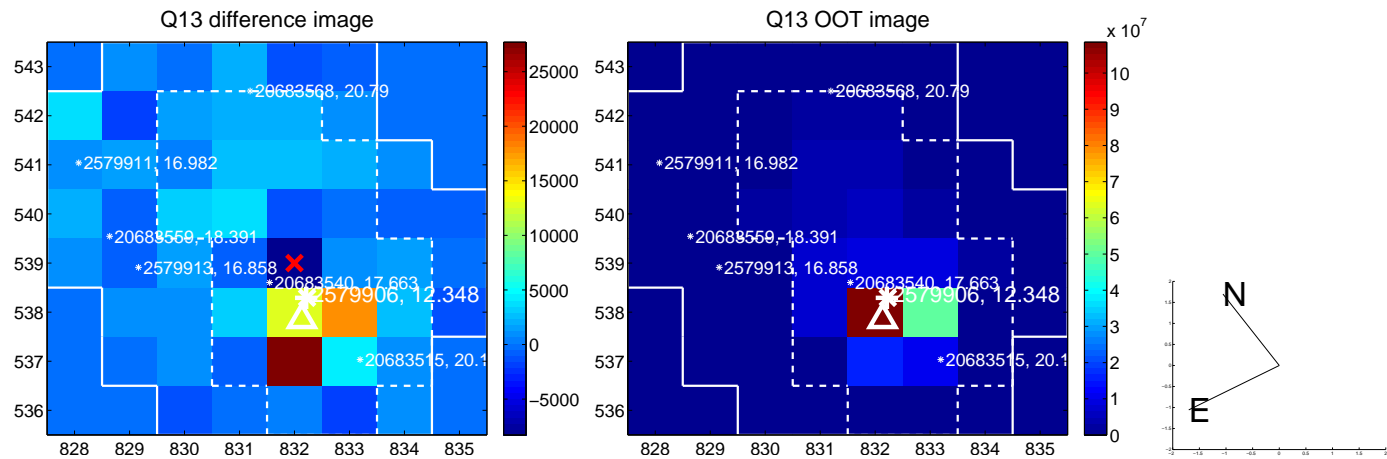
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



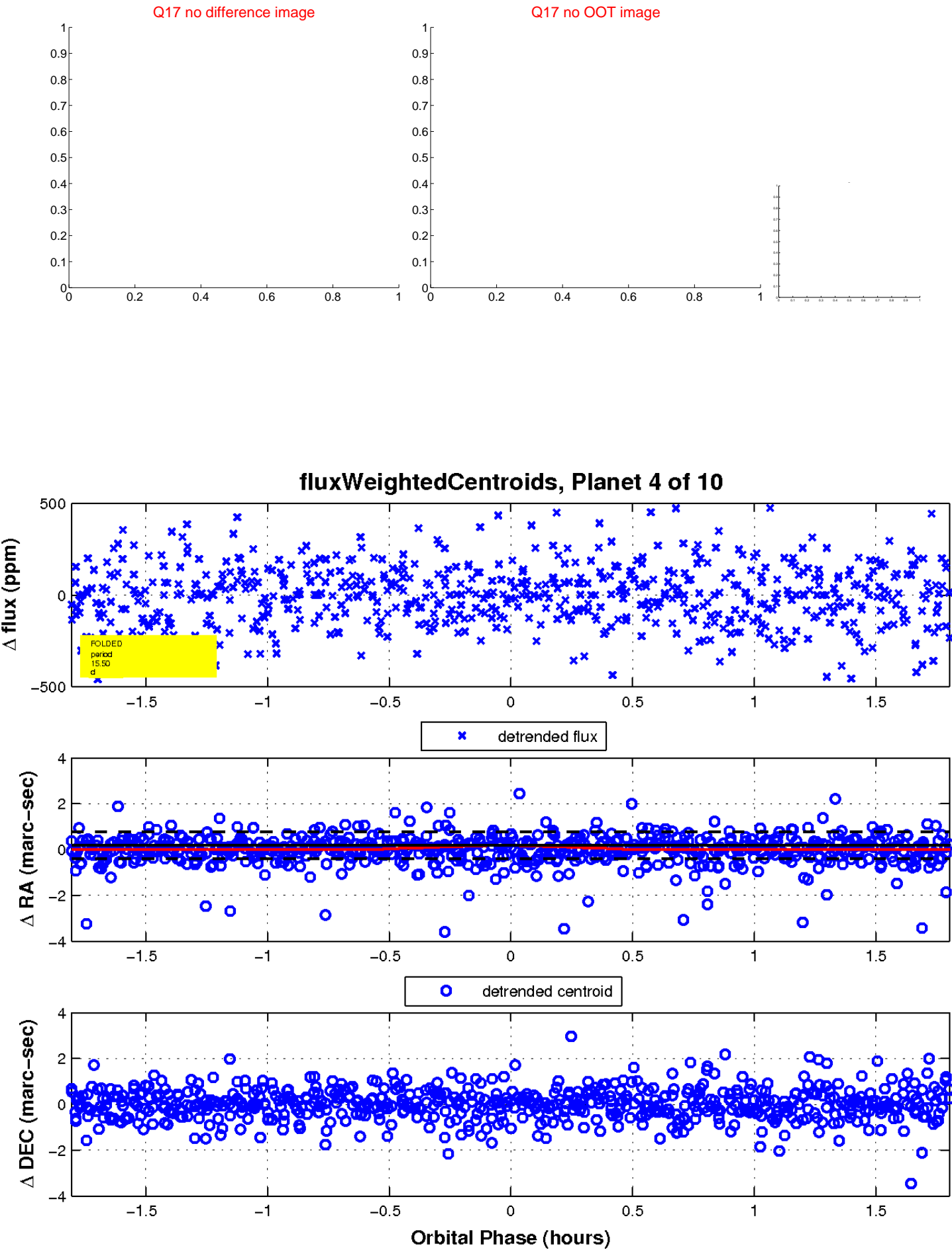
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



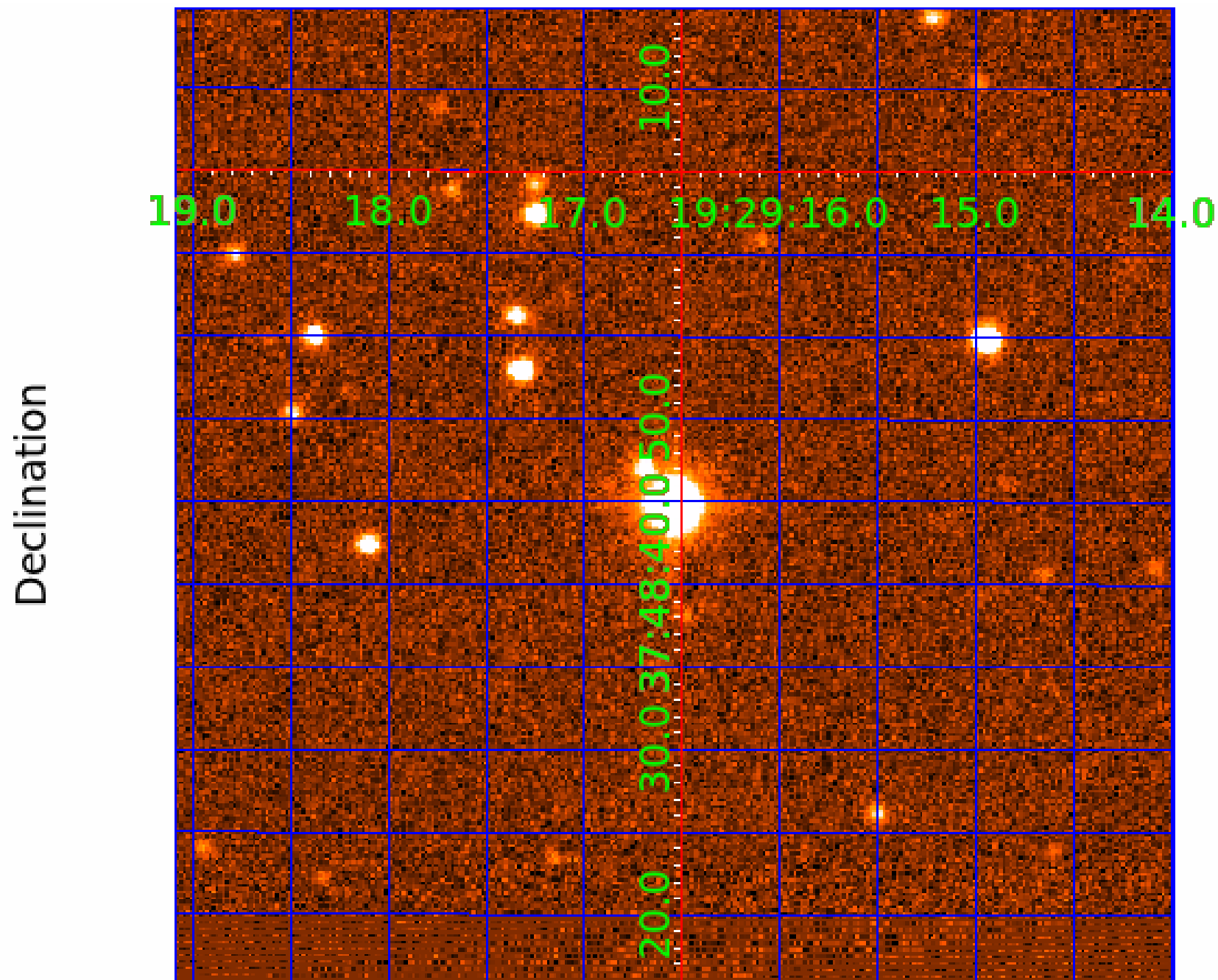
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
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002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

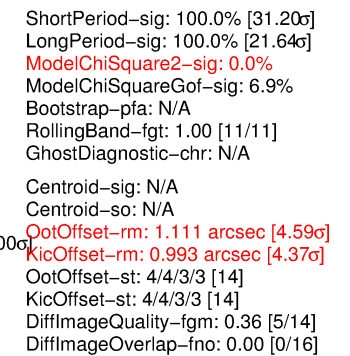
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 002579906-05

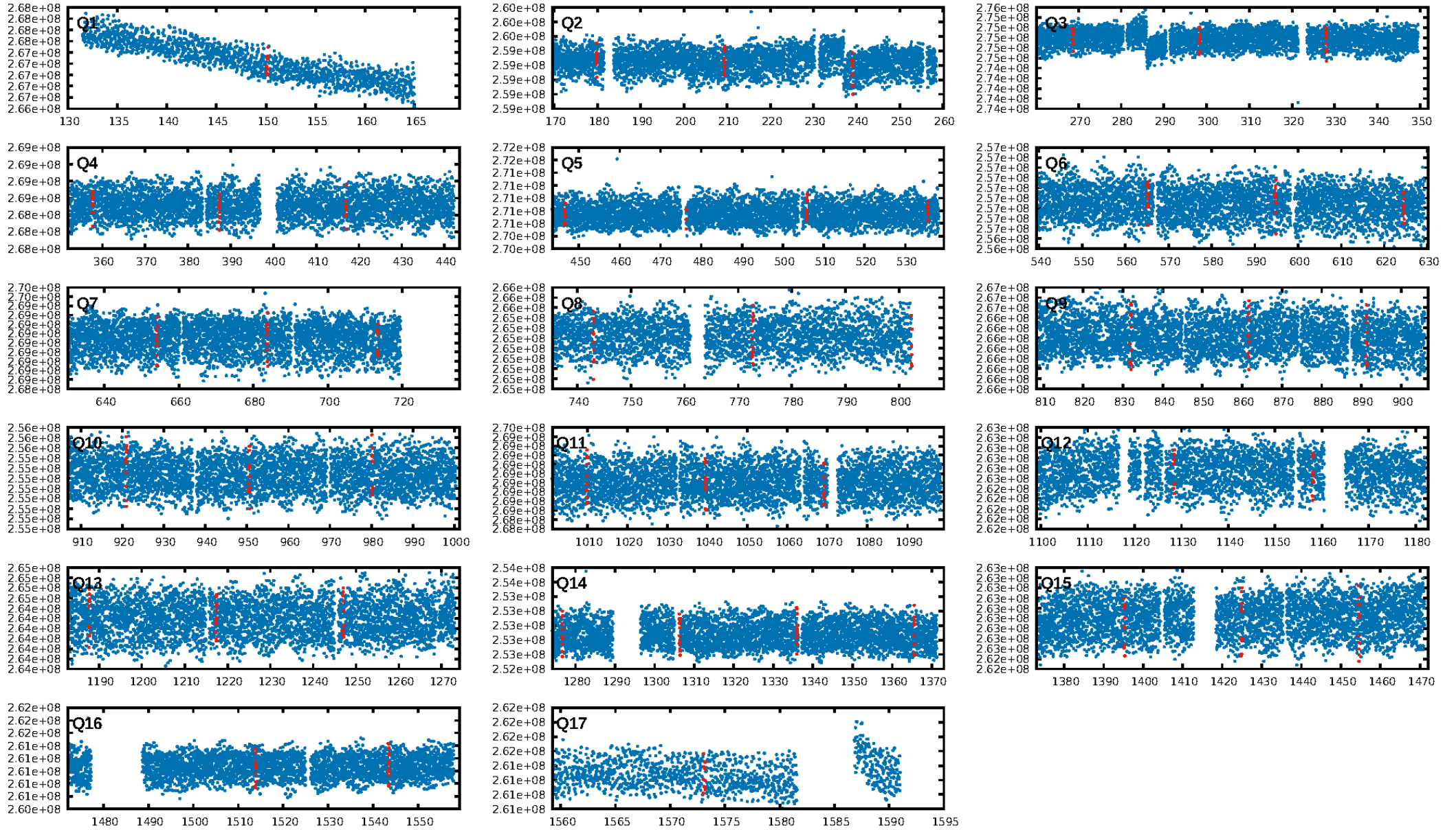
No Significant Match Found

KIC: 2579906 Candidate: 5 of 10 Period: 29.646 d

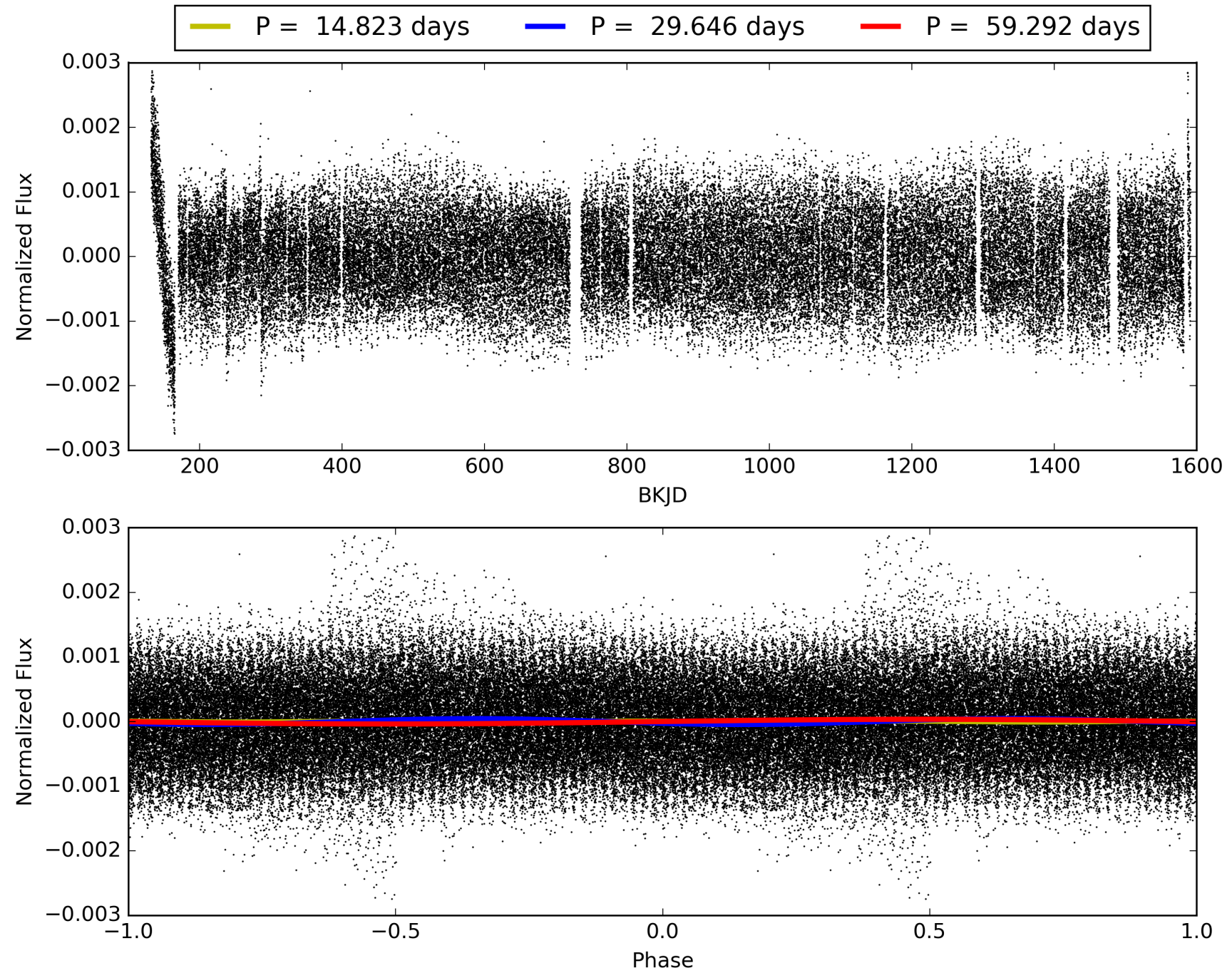


This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002579906-05, PDC Light Curves

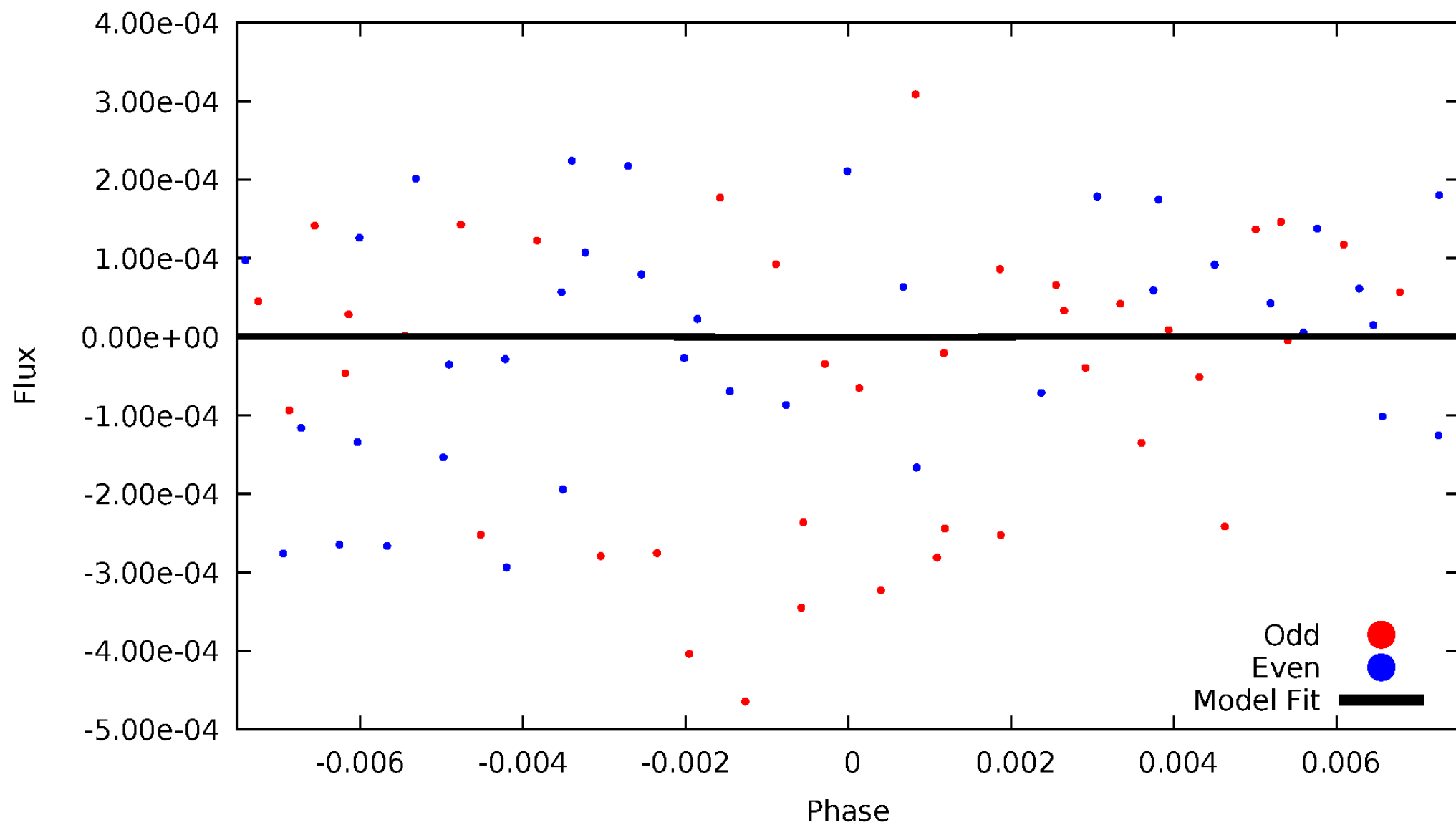


TCE 002579906-05



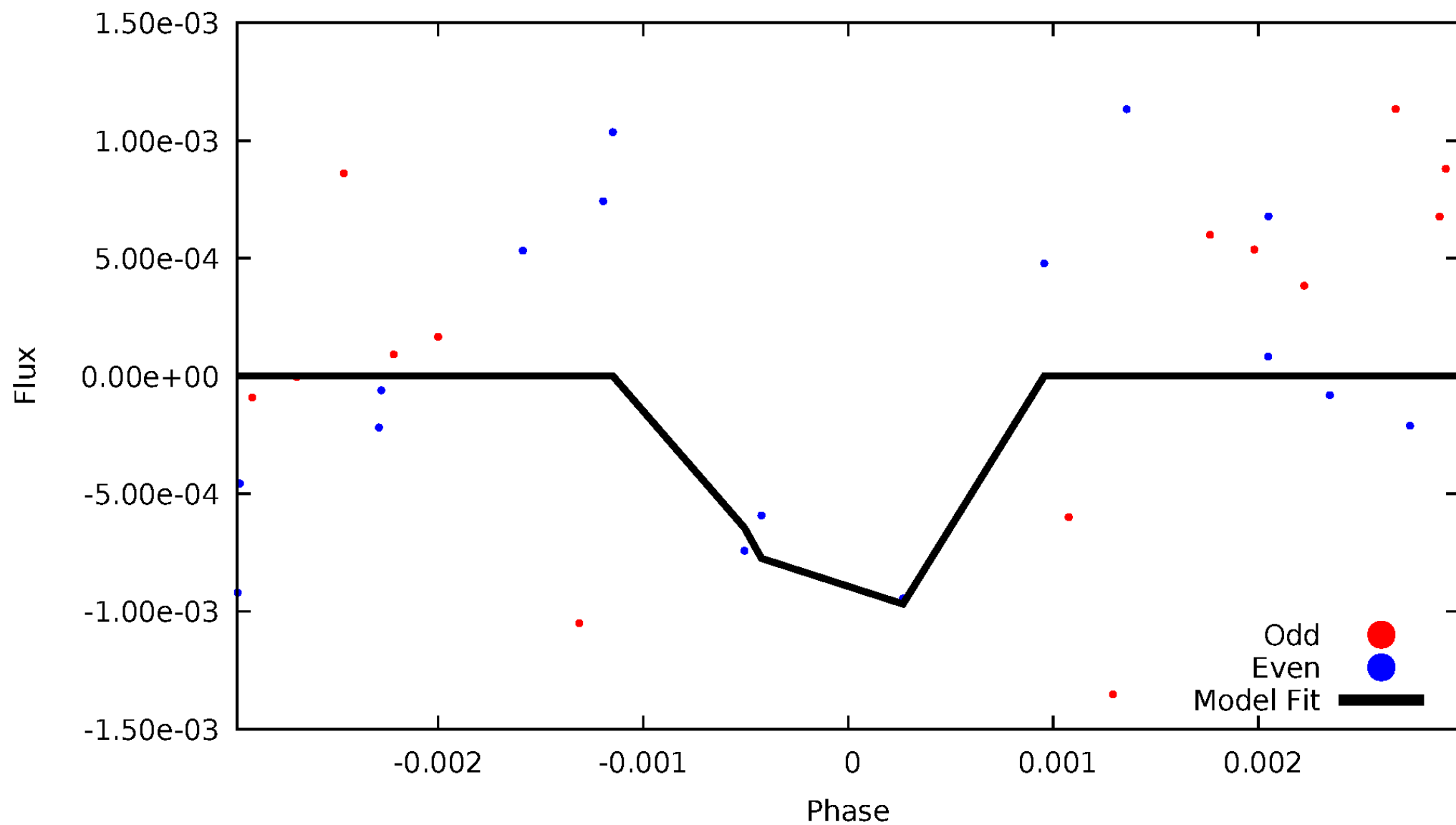
DV Odd/Even

TCE 002579906-05



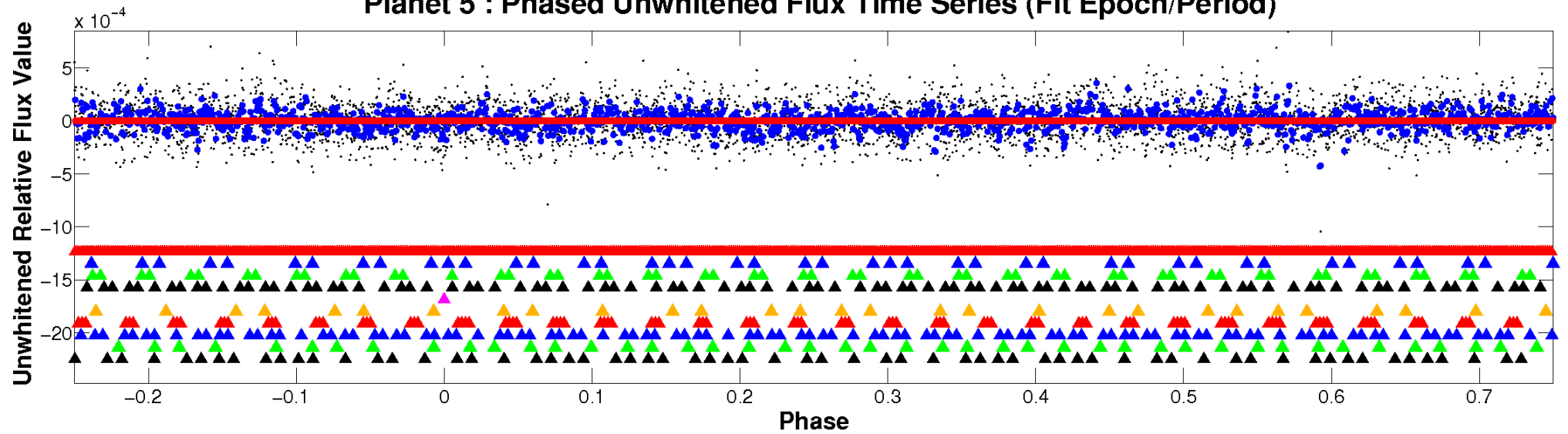
ALT Odd/Even

TCE 002579906-05

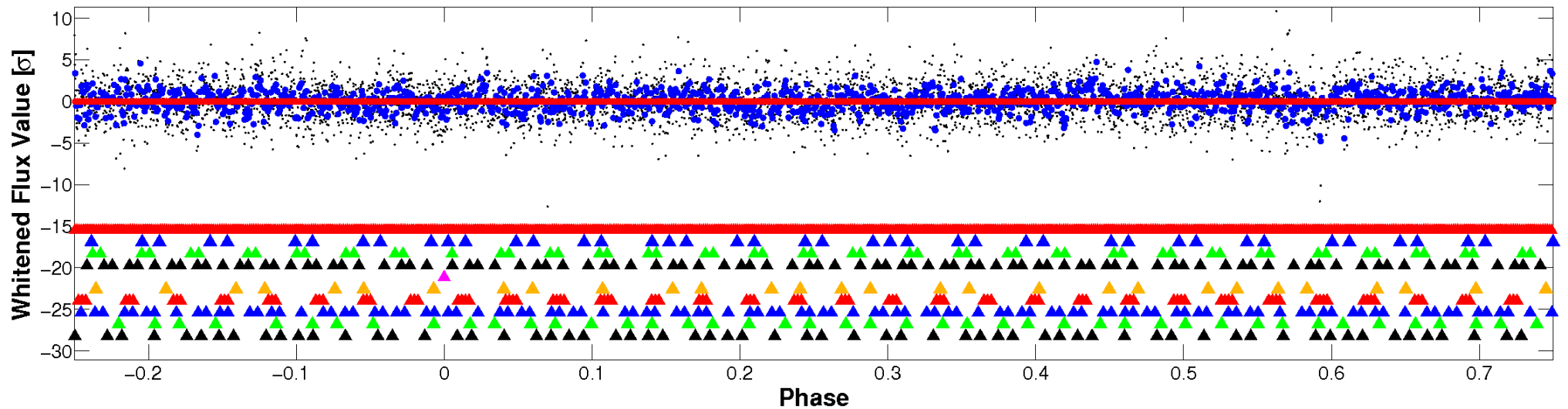


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

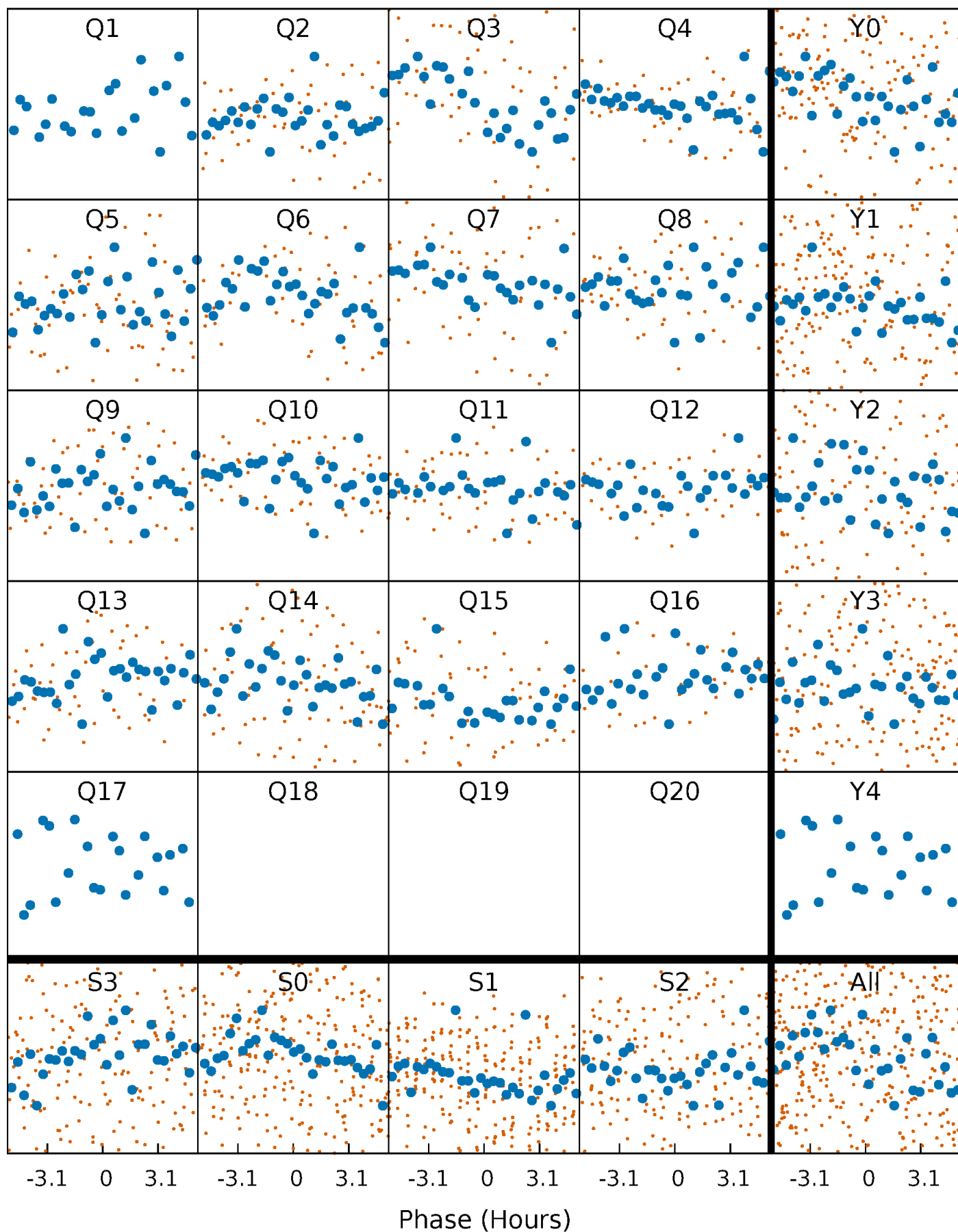


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



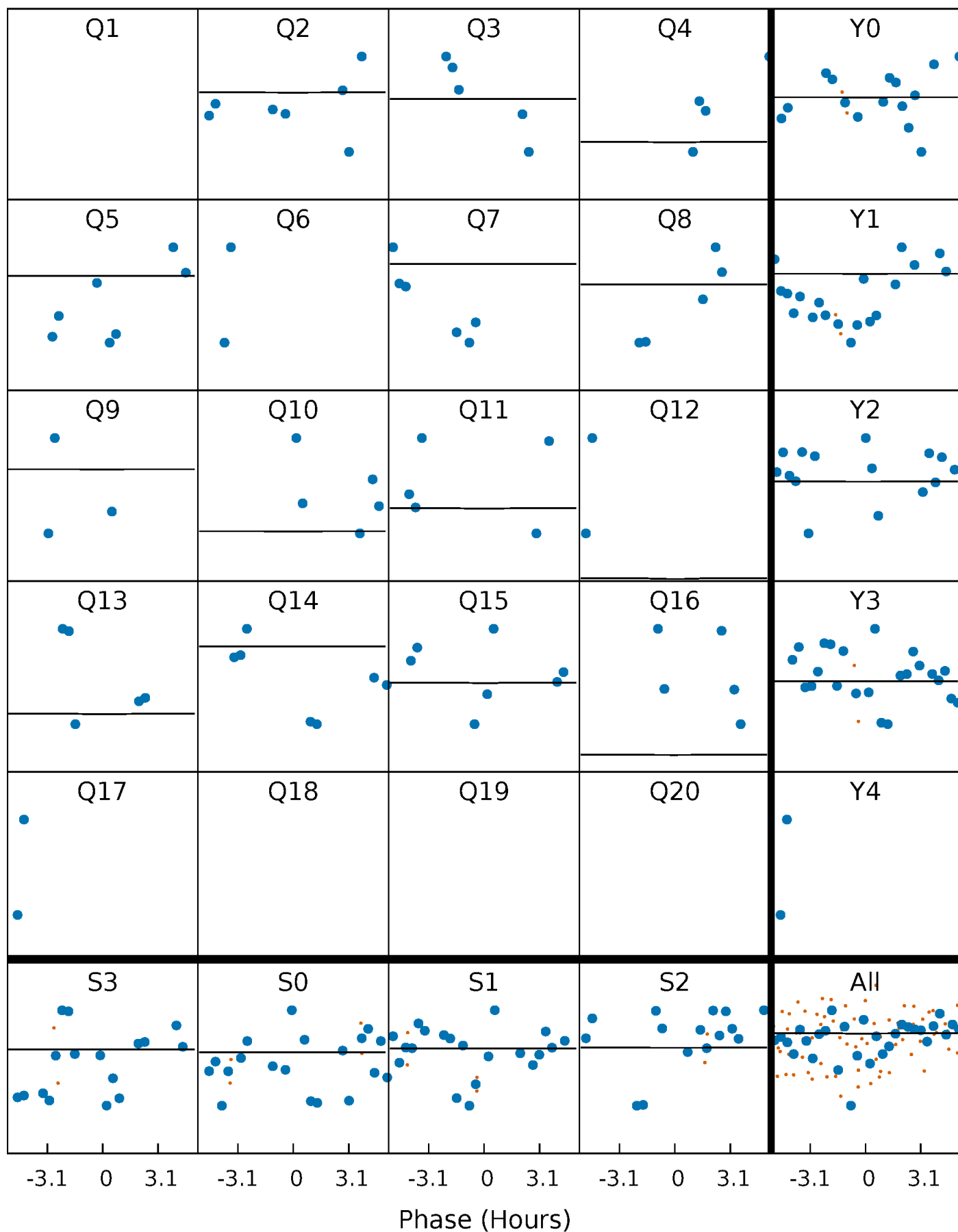
PDC Quarter-Phased Transit Curves

TCE 002579906-05 $P = 29.645928$ Days $T_0 = 150.118155$ (BKJD)



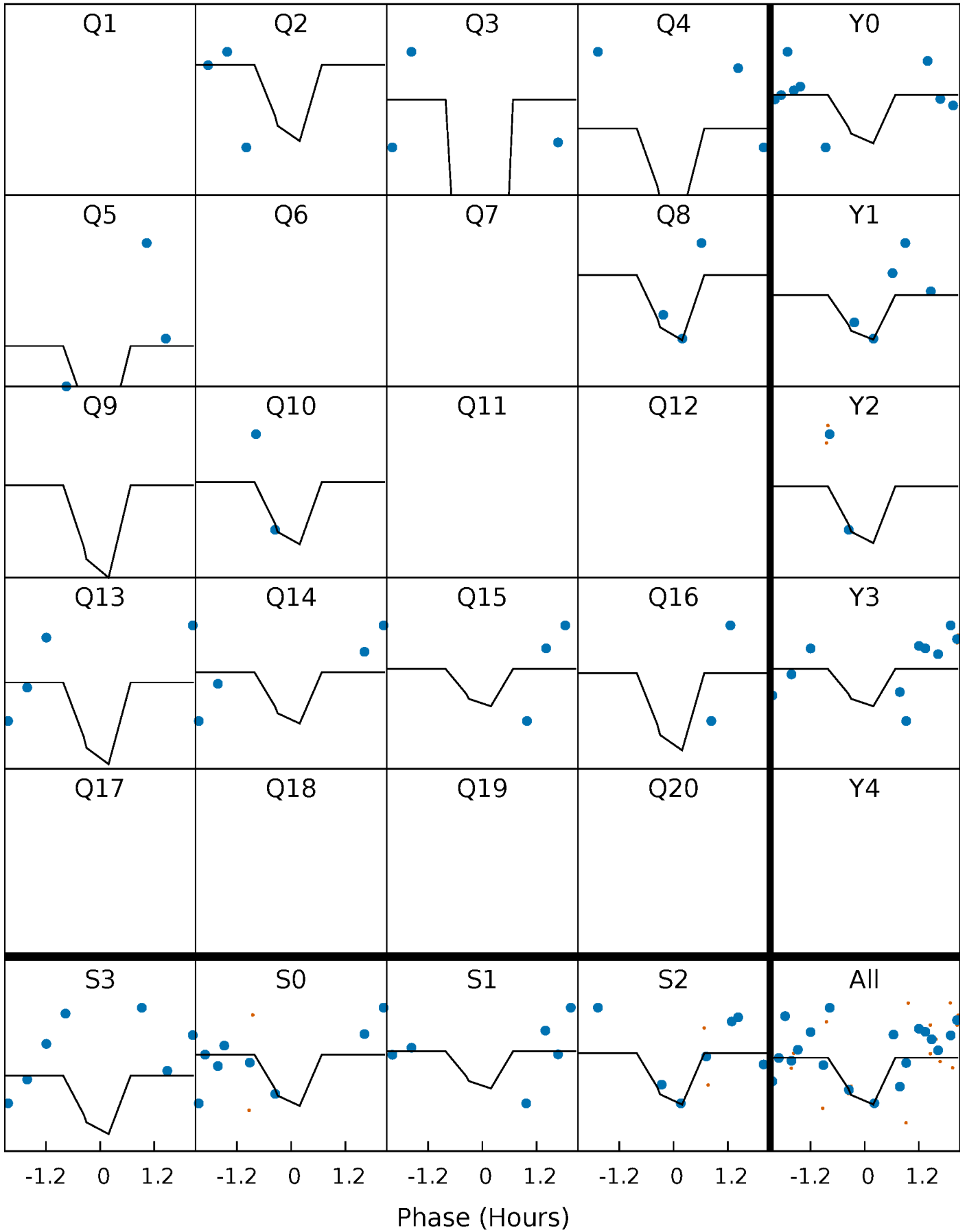
DV Quarter-Phased Transit Curves

TCE 002579906-05 $P = 29.645928$ Days $T_0 = 150.118155$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

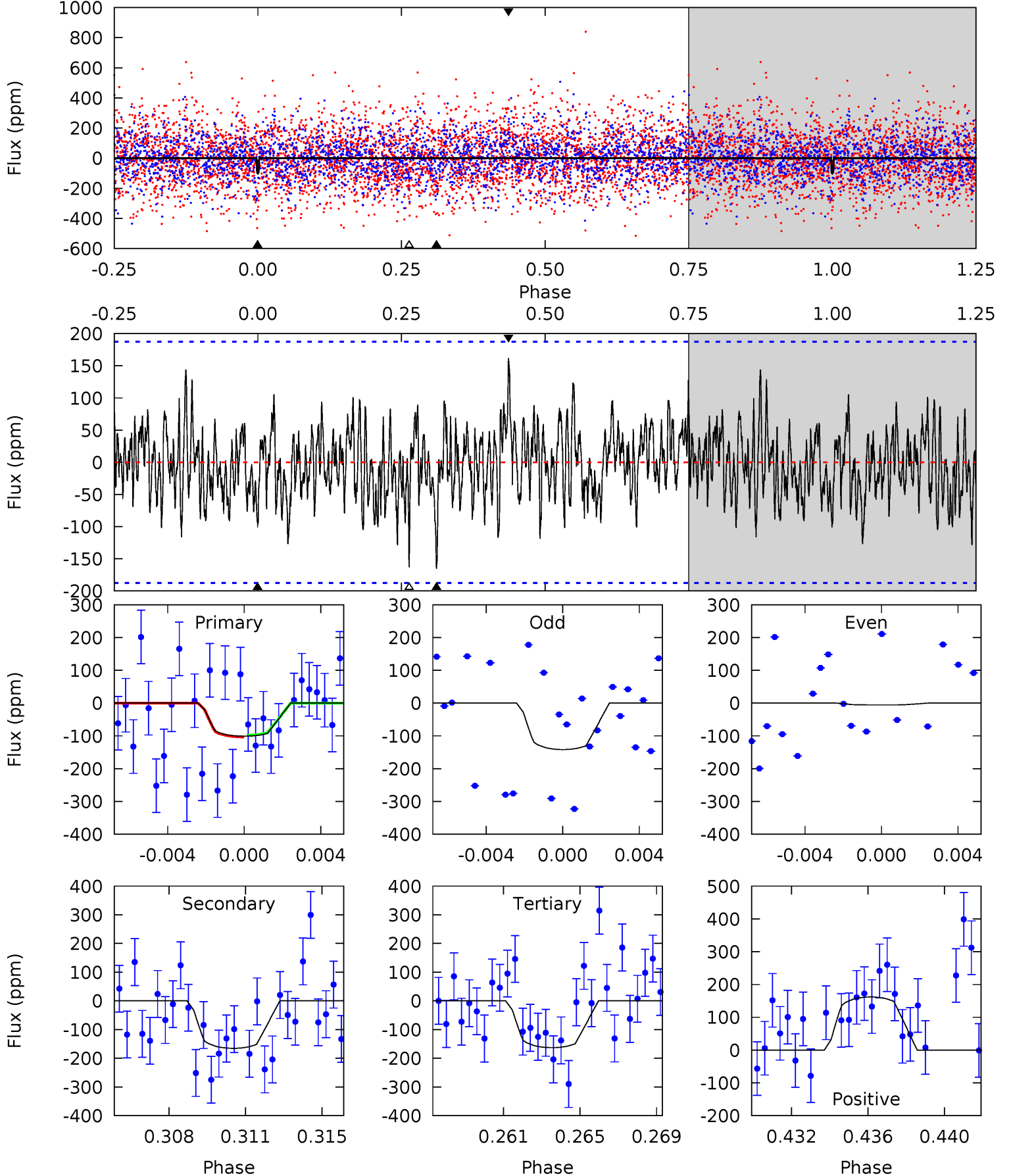
TCE 002579906-05 $P = 29.639950$ Days $T_0 = 150.320556$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-05, P = 29.645928 Days, E = 120.472227 Days

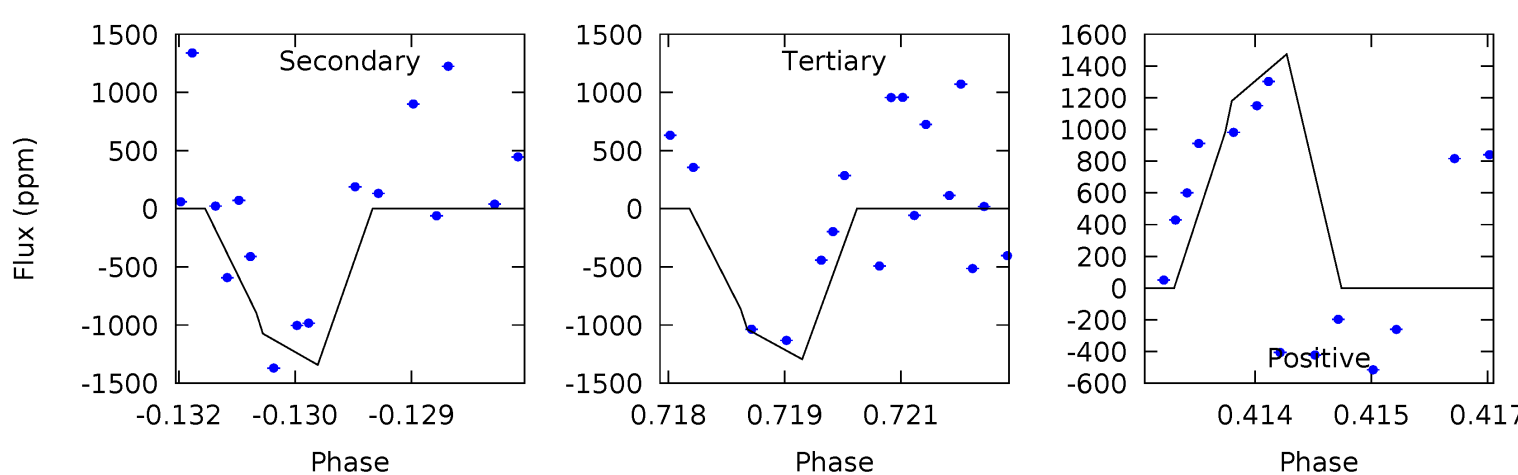
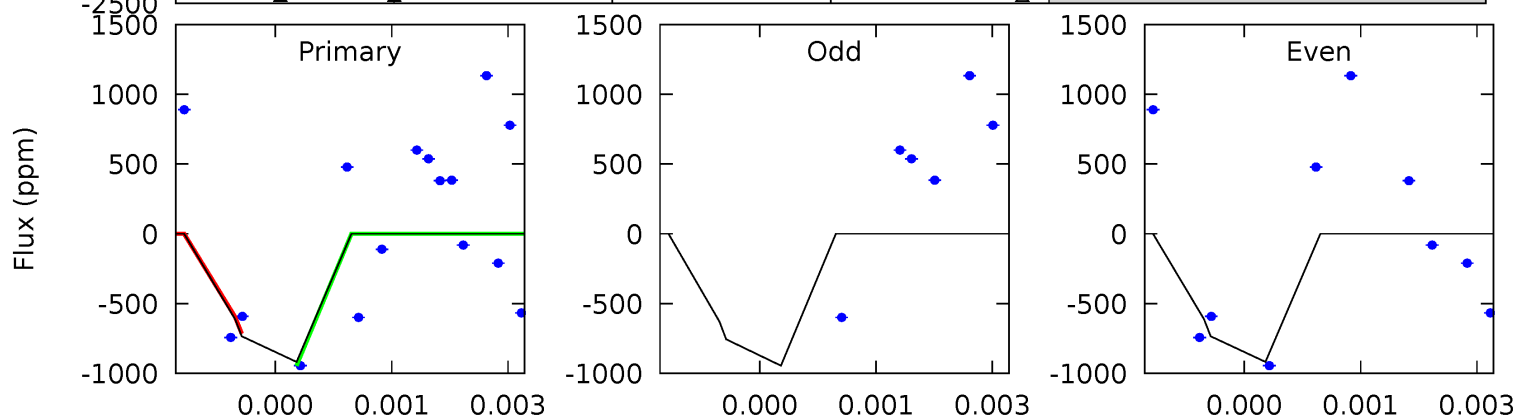
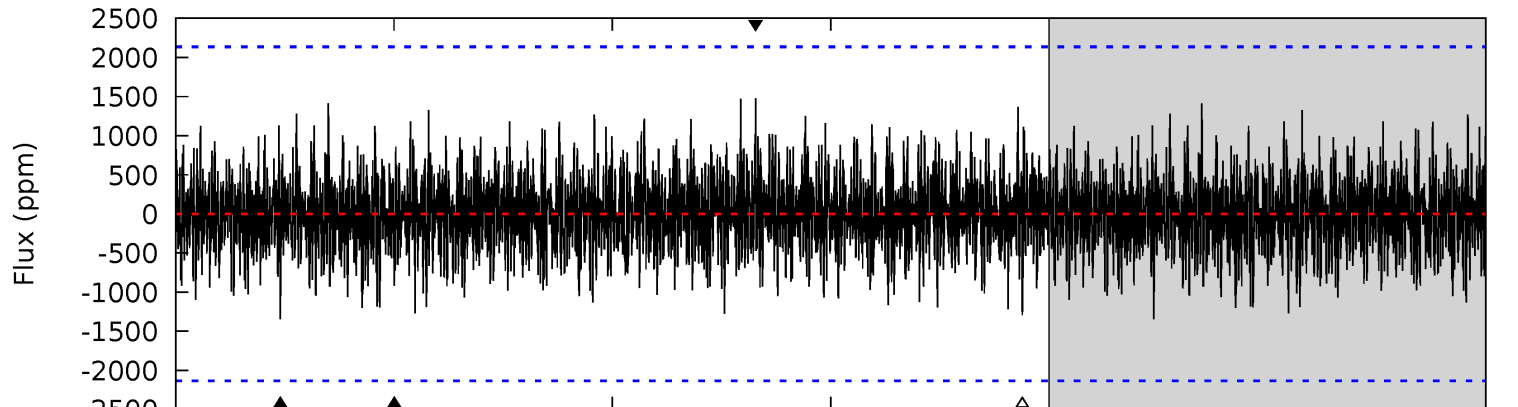
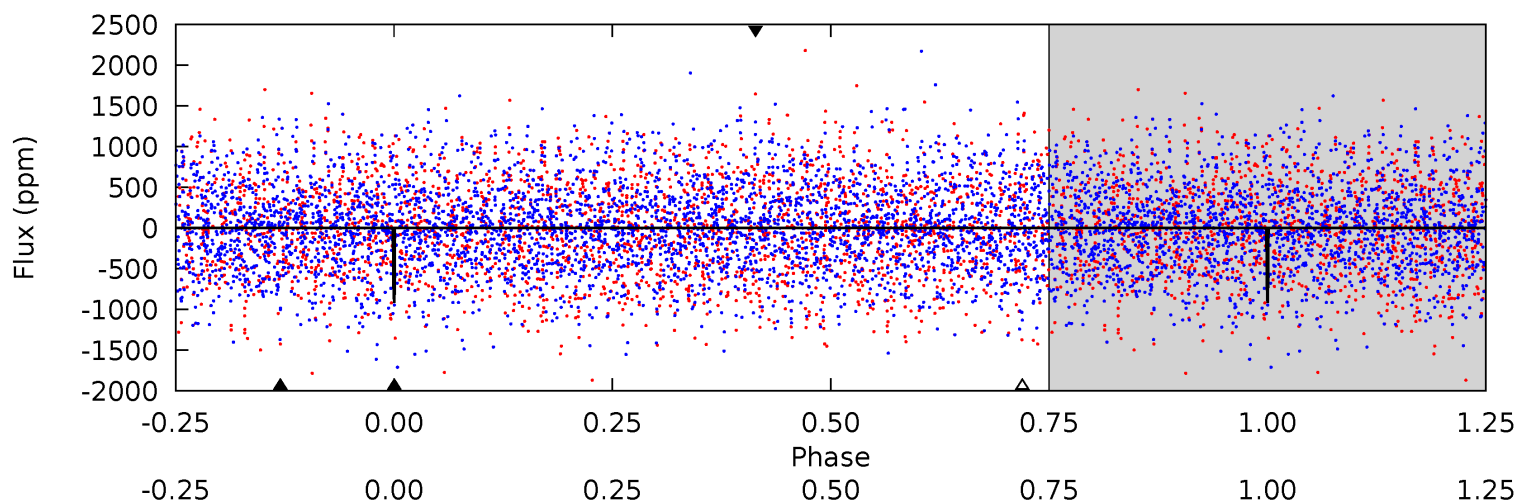
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.80	4.59	4.53	4.50	5.20	2.89	1.30	-1.72	-1.69	0.06	0.09	1.73	2.29	0.49	0.07



Alt Model-Shift Uniqueness Test

002579906-05, P = 29.639950 Days, E = 120.680606 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.32	3.39	3.27	3.72	5.38	3.18	1.05	-0.95	-1.40	0.12	-0.33	0.04	1.00	0.52	0.29



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-165 ± 36	$42.23^{+49.61}_{-30.05}$	1583^{+109}_{-192}	2798^{+1338}_{-627}	$2.495^{+23.690}_{-1.936}$
Alt.	-1342 ± 396	$45.09^{+53.47}_{-31.11}$	1579^{+117}_{-172}	3795^{+2461}_{-753}	18^{+190}_{-14}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

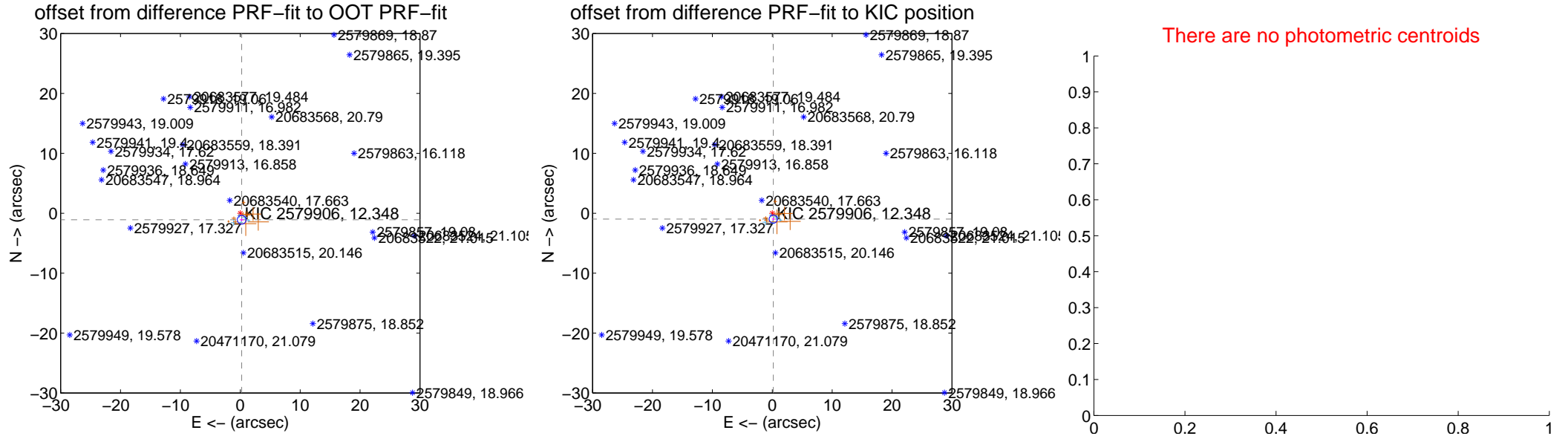
DV Centroid Data

Supplemental centroid analysis for 002579906-05. Kepler magnitude: 12.35. Transit SNR 0.03

There are 5 quarters with good PRF difference image offsets

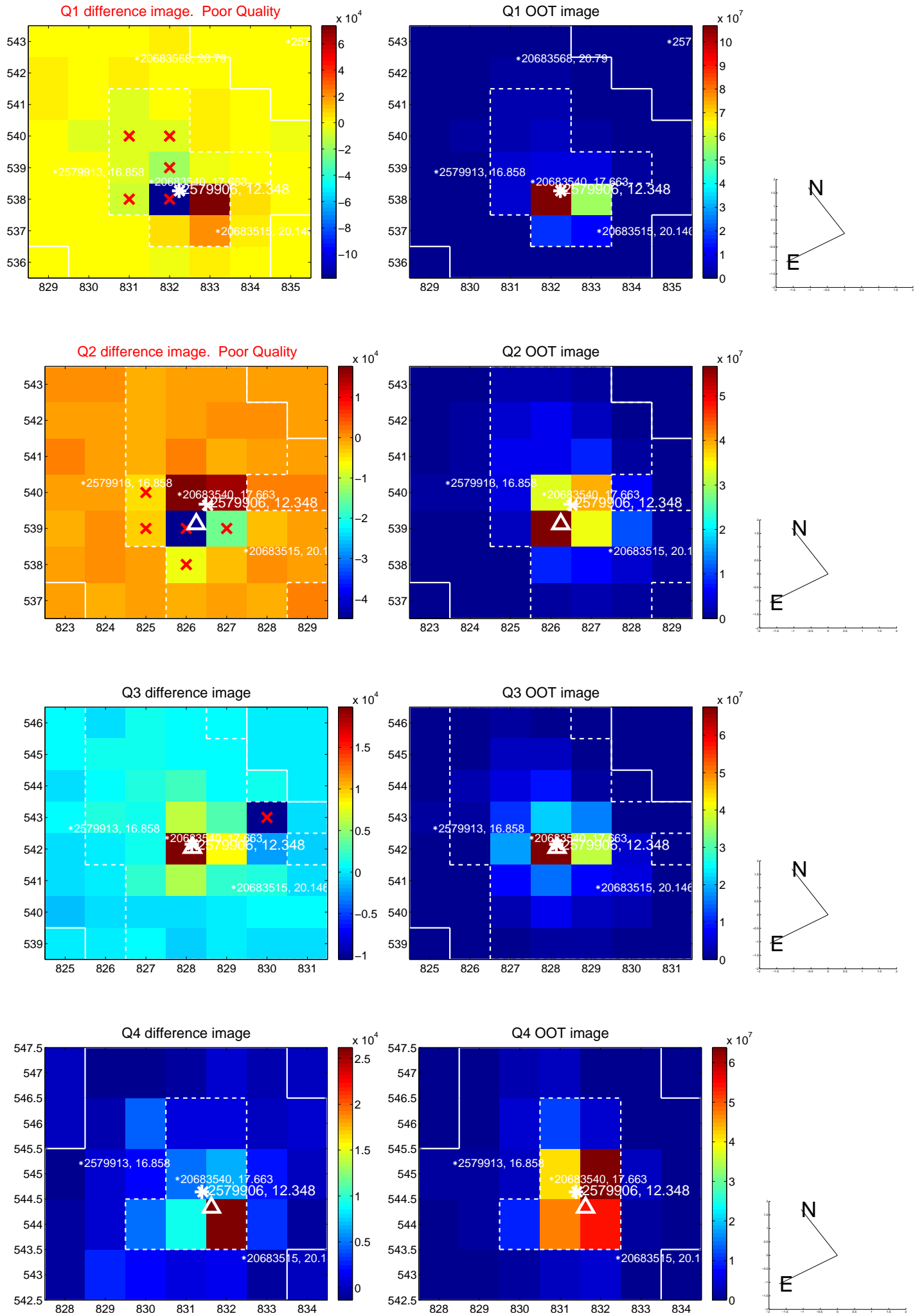
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.111 ± 0.242	4.59	-0.238 ± 0.334	-1.086 ± 0.247
PRF-fit source offset from KIC position	0.993 ± 0.227	4.37	-0.172 ± 0.231	-0.978 ± 0.227
photometric centroid source offset	—	—	—	—

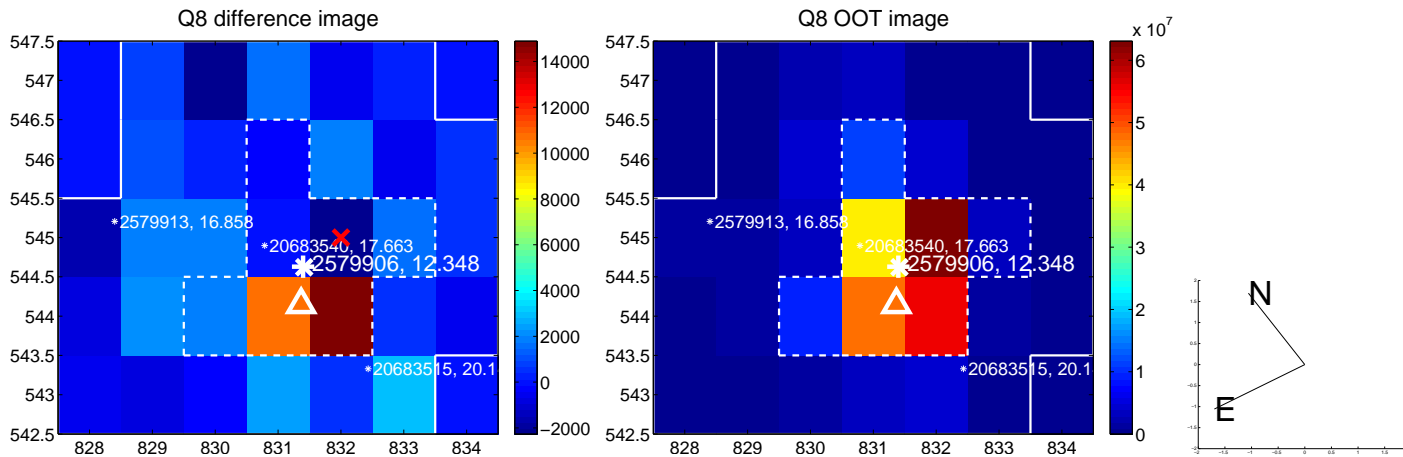
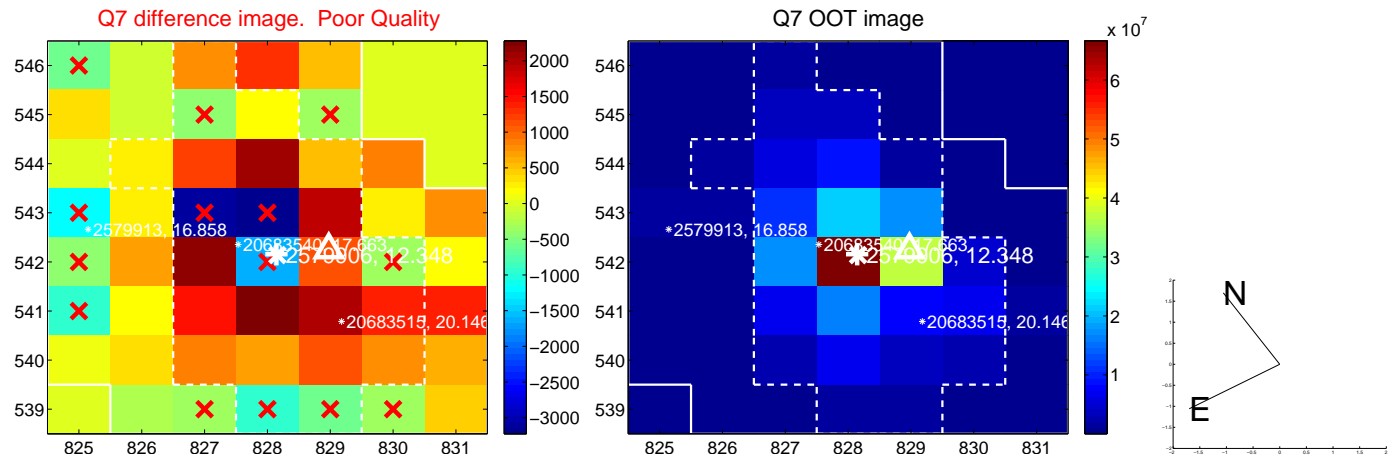
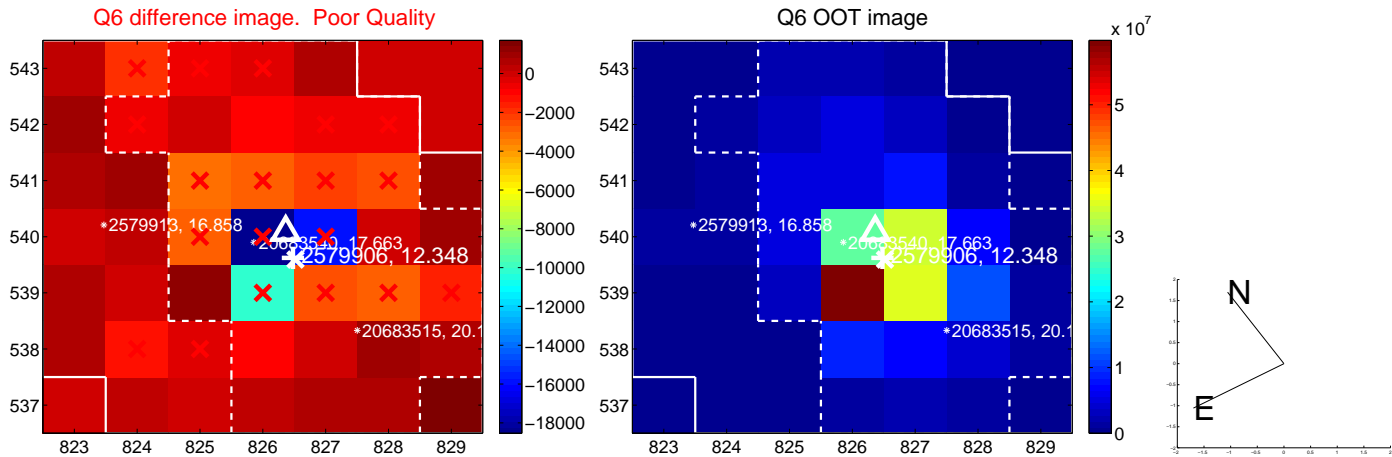
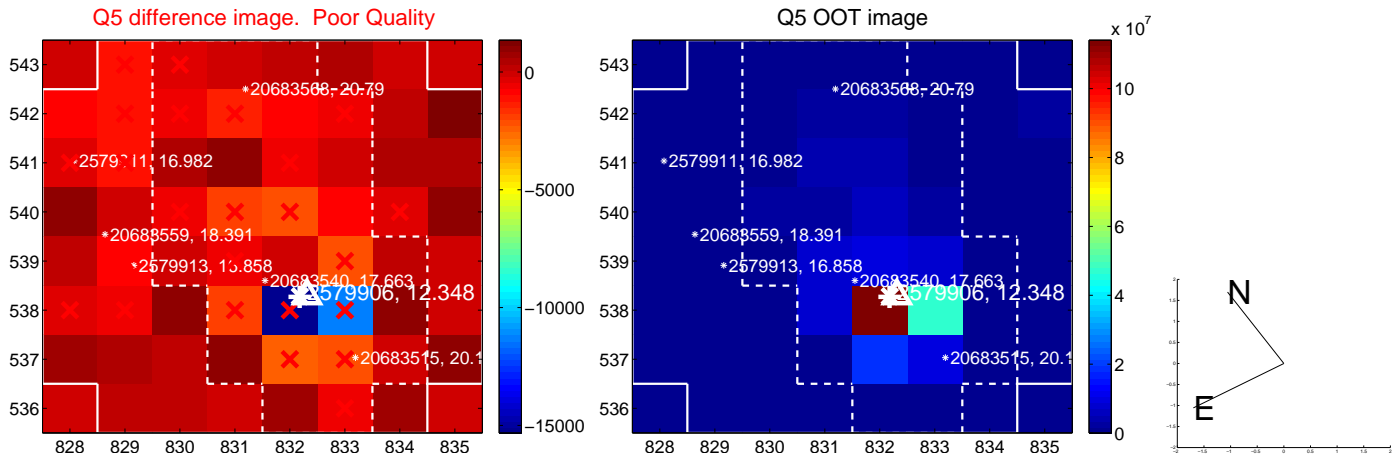


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

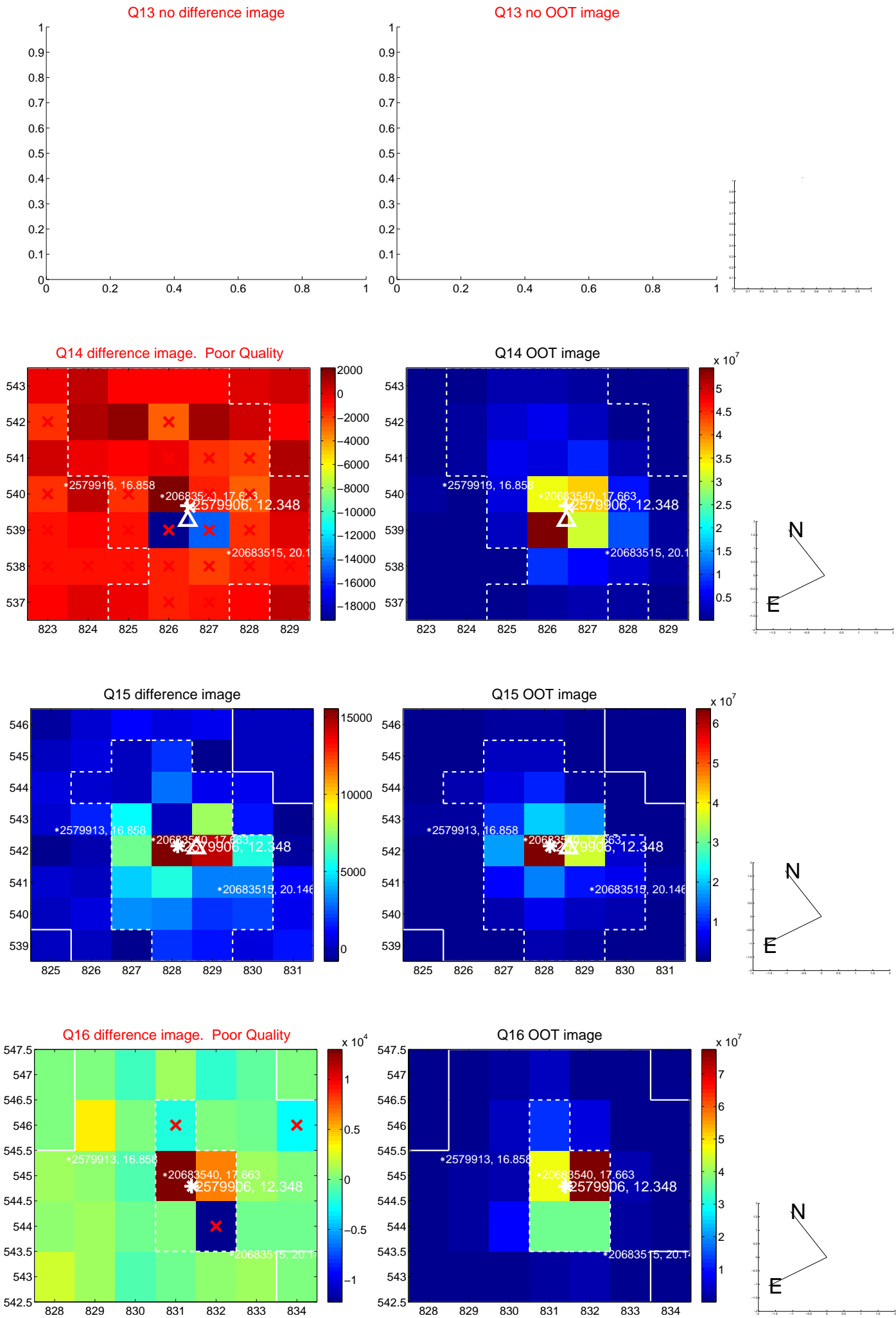
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



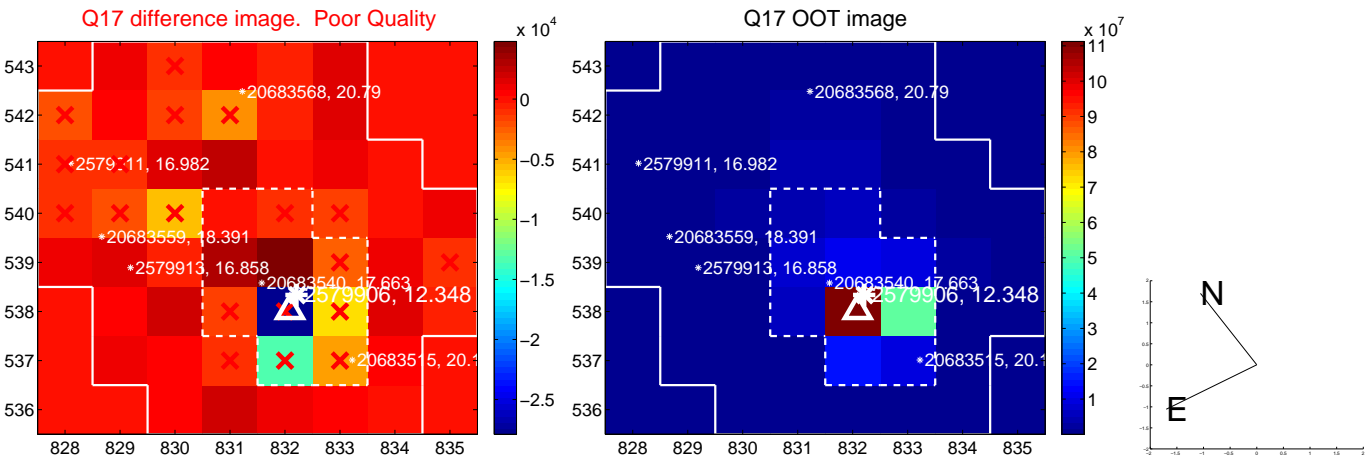
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

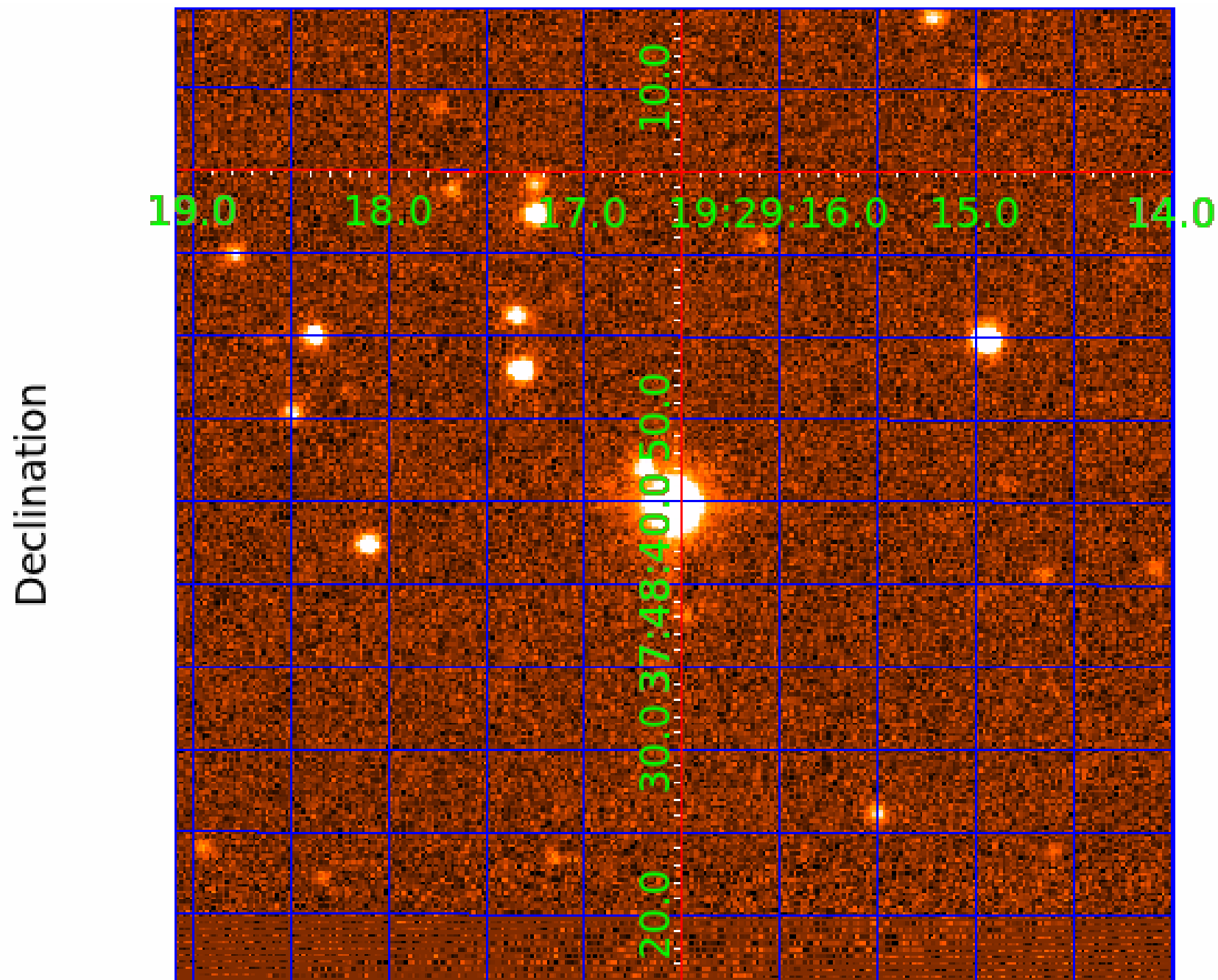


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

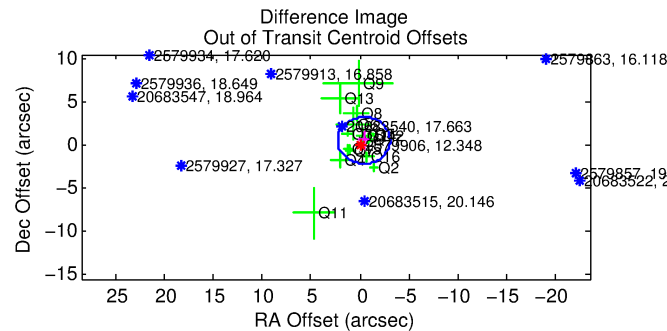
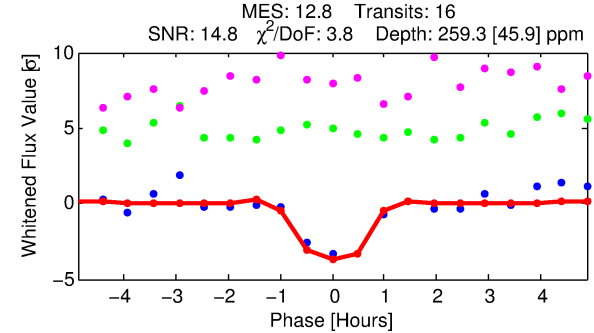
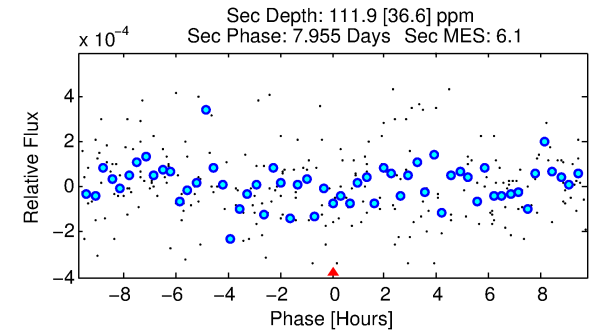
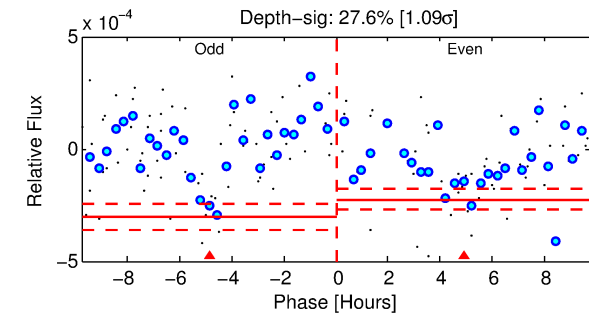
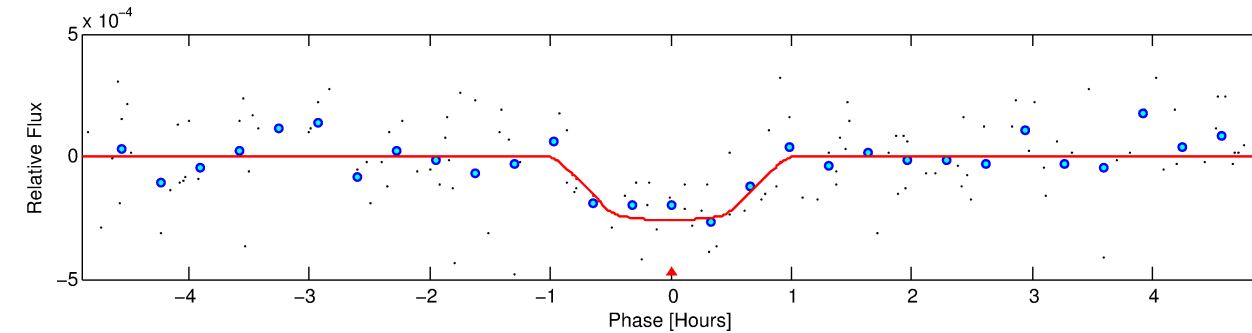
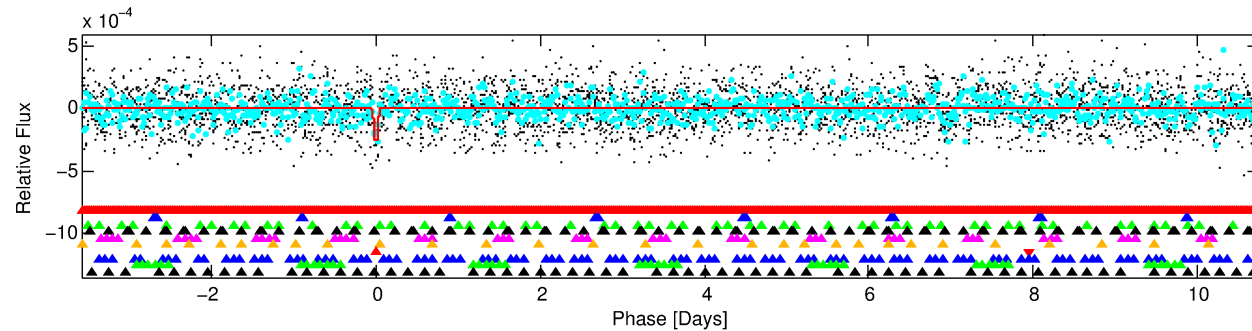
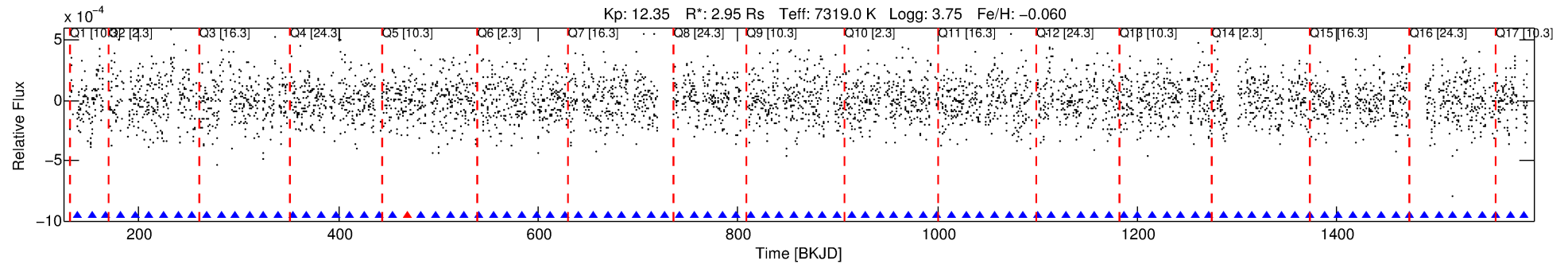
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-07

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 7 of 10 Period: 14.347 d



DV Fit Results:

Period = 14.34718 [0.00012] d
Epoch = 138.9052 [0.0071] BKJD
Rp/R* = 0.0174 [0.0111]
a/R* = 29.64 [118.79]
b = 0.92 [0.70]
Seff = 1138.48 [824.44]
Teq = 1481 [268] K
Rp = 5.59 [4.34] Re
a = 0.1402 [0.0610] AU
Ag = 38.69 [57.81] [0.65] σ
Teffp = 5712 [1896] K [2.21] σ

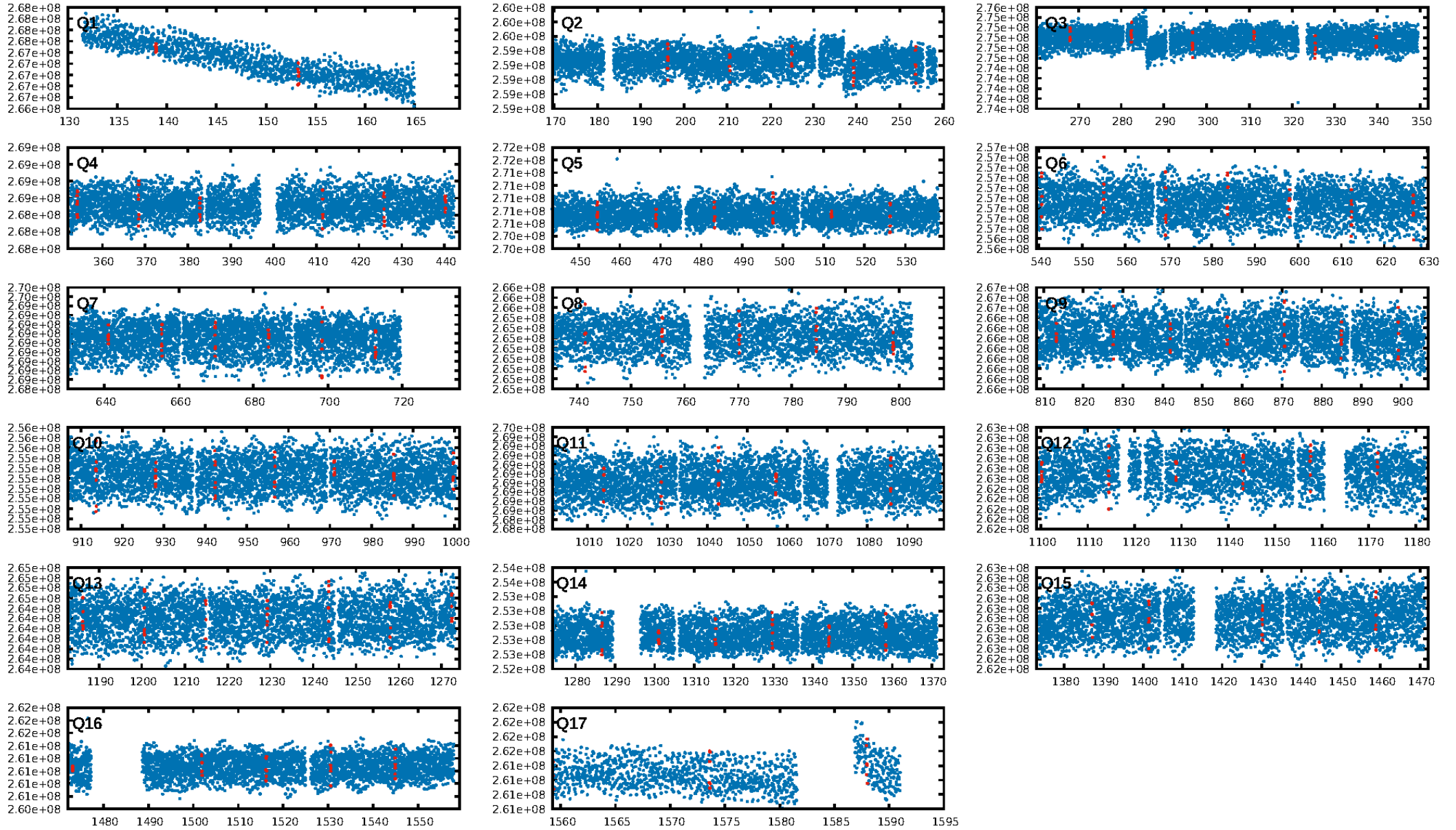
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.86] σ
LongPeriod-sig: 100.0% [5.80] σ
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 39.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.93 [14/15]
GhostDiagnostic-chr: 19.28
Centroid-sig: N/A
Centroid-so: 1.260 arcsec [3.56] σ
OotOffset-rm: 0.669 arcsec [0.75] σ
KicOffset-rm: 0.692 arcsec [0.81] σ
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.27 [4/15]
DiffImageOverlap-fno: 0.00 [0/17]

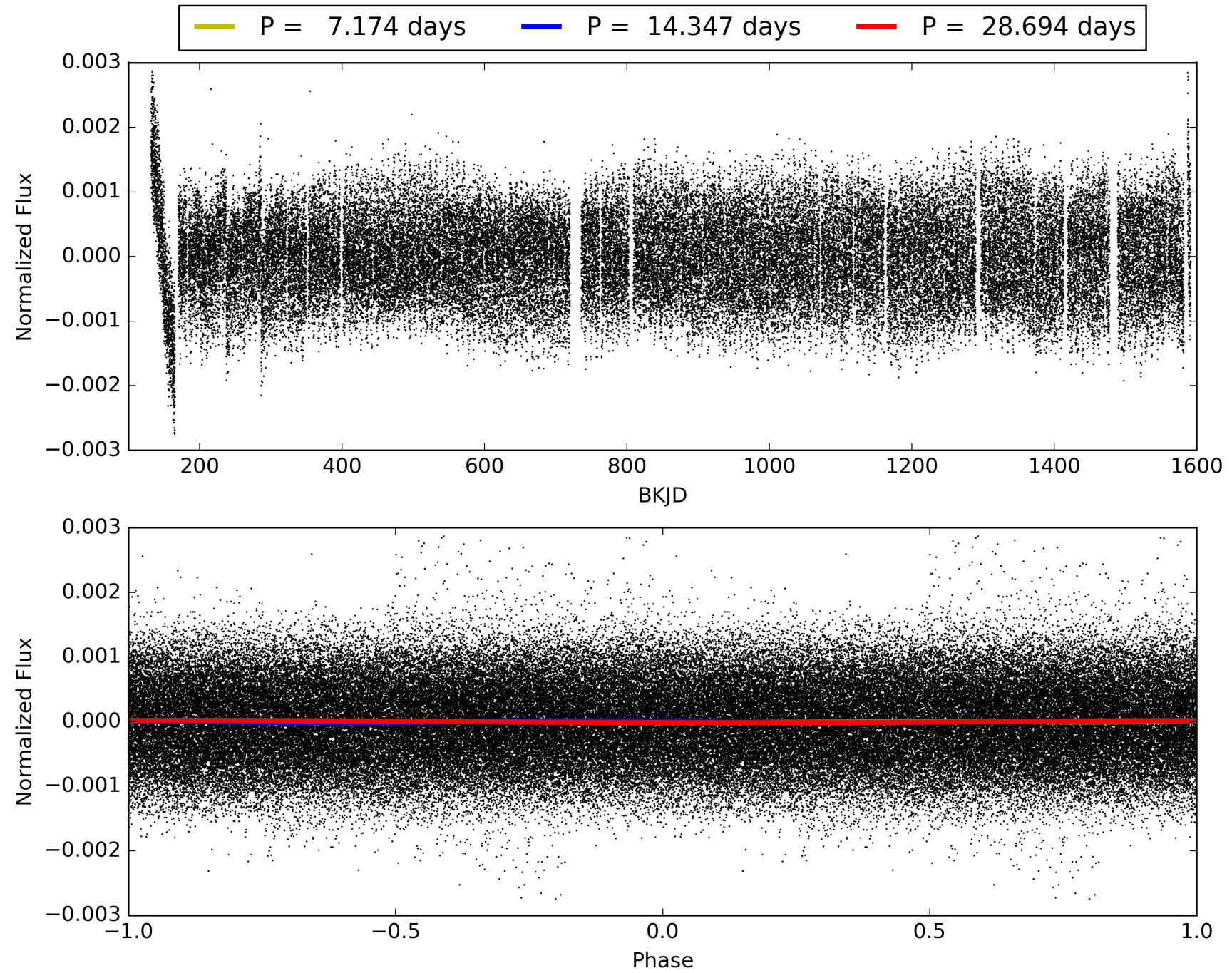
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:41 Z

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

TCE 002579906-07, PDC Light Curves

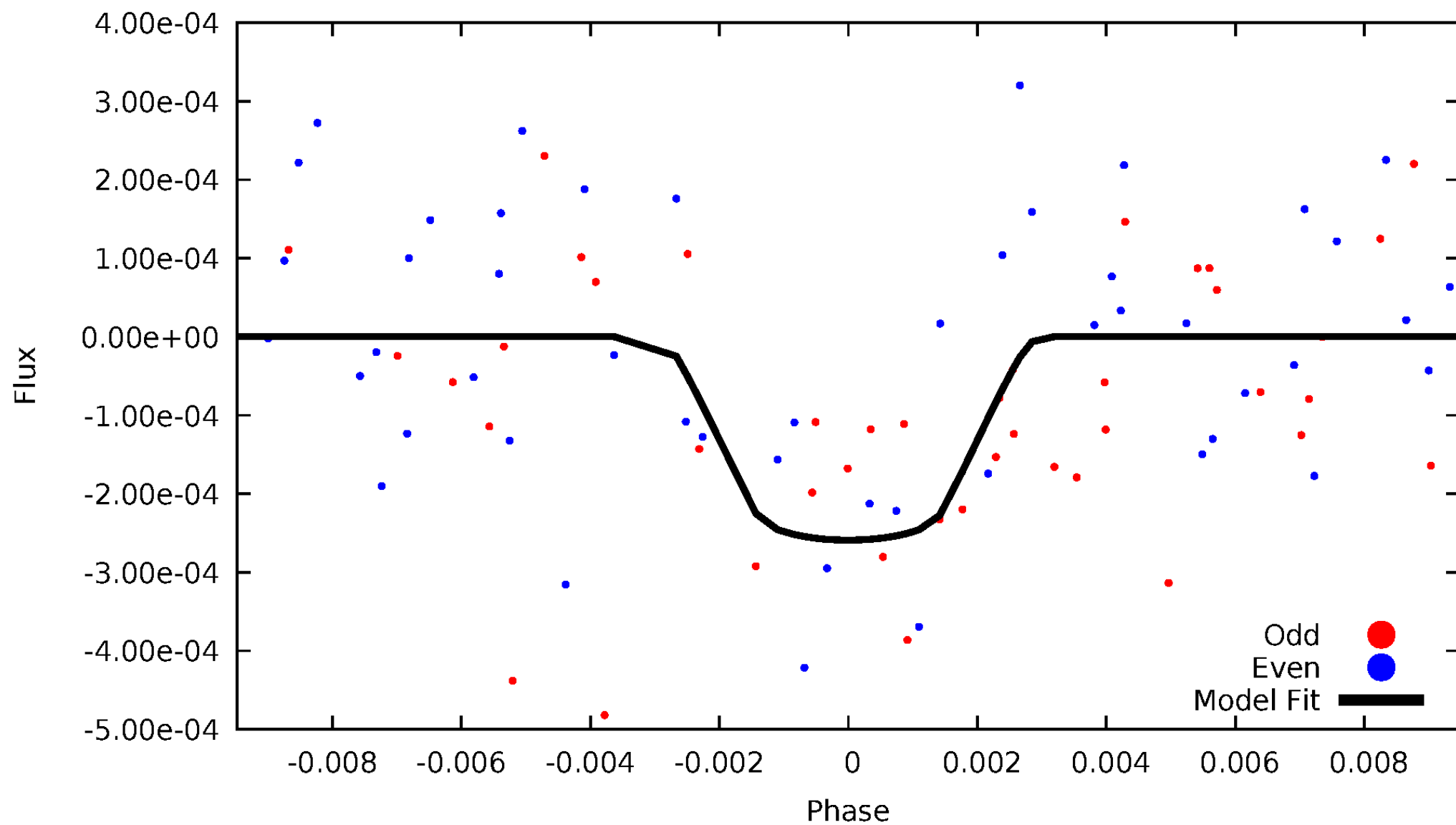


TCE 002579906-07



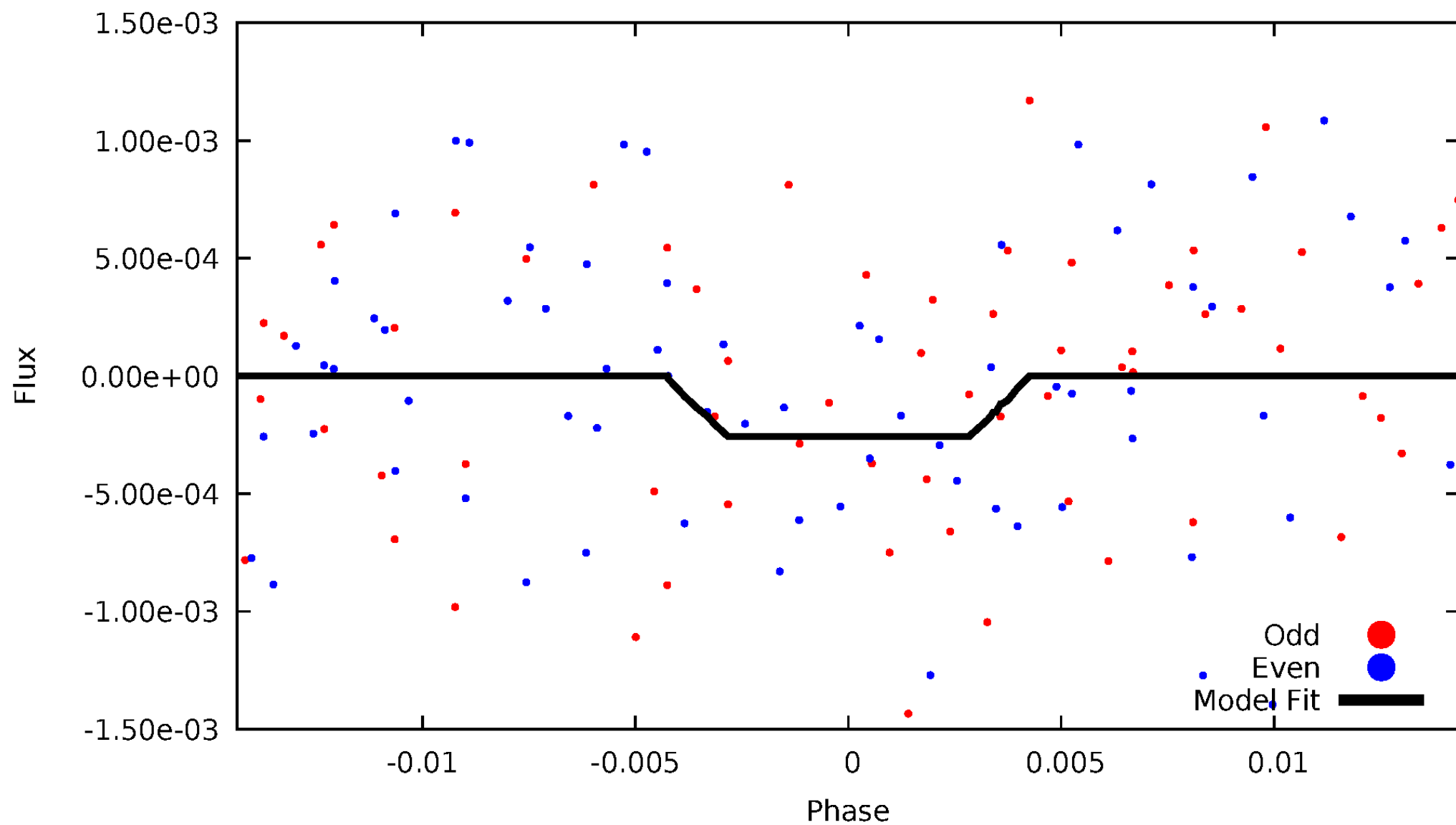
DV Odd/Even

TCE 002579906-07

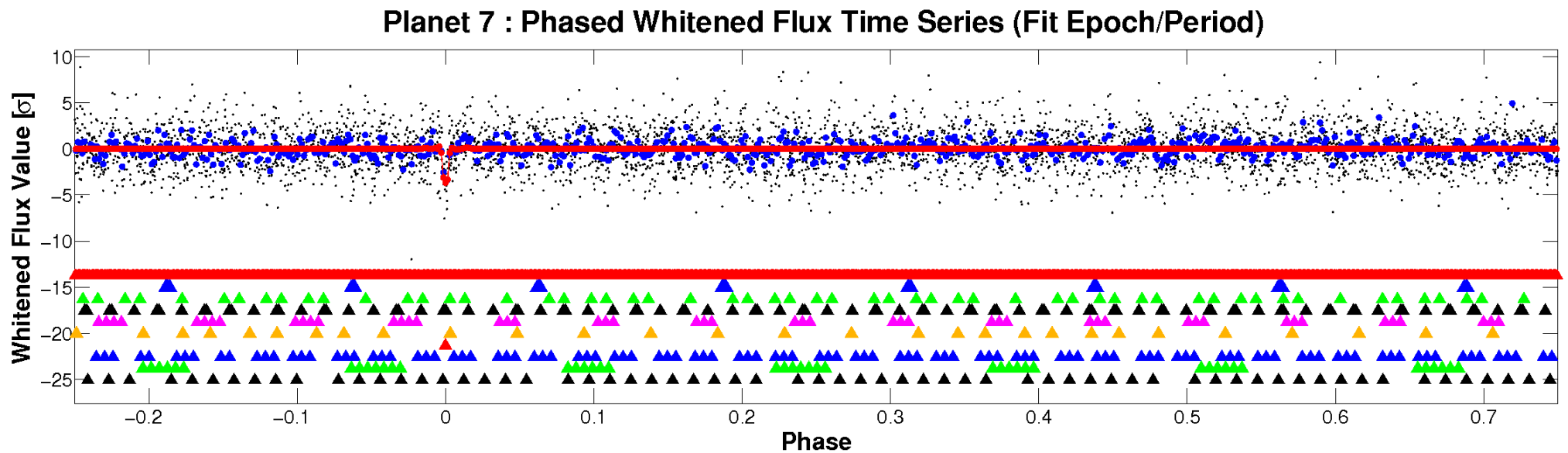
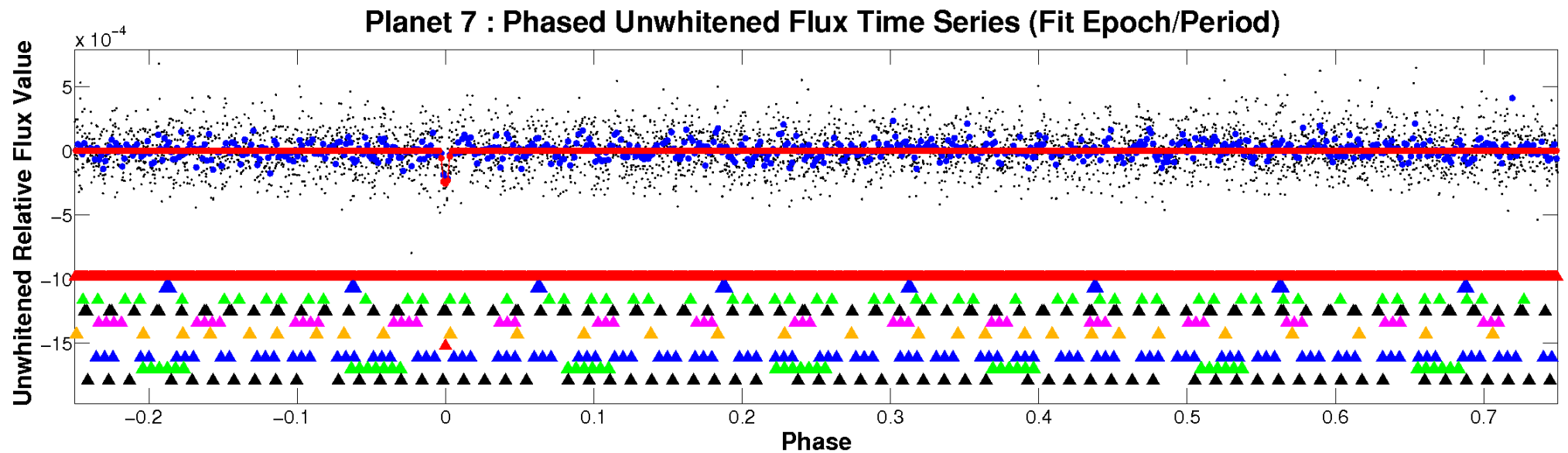


ALT Odd/Even

TCE 002579906-07

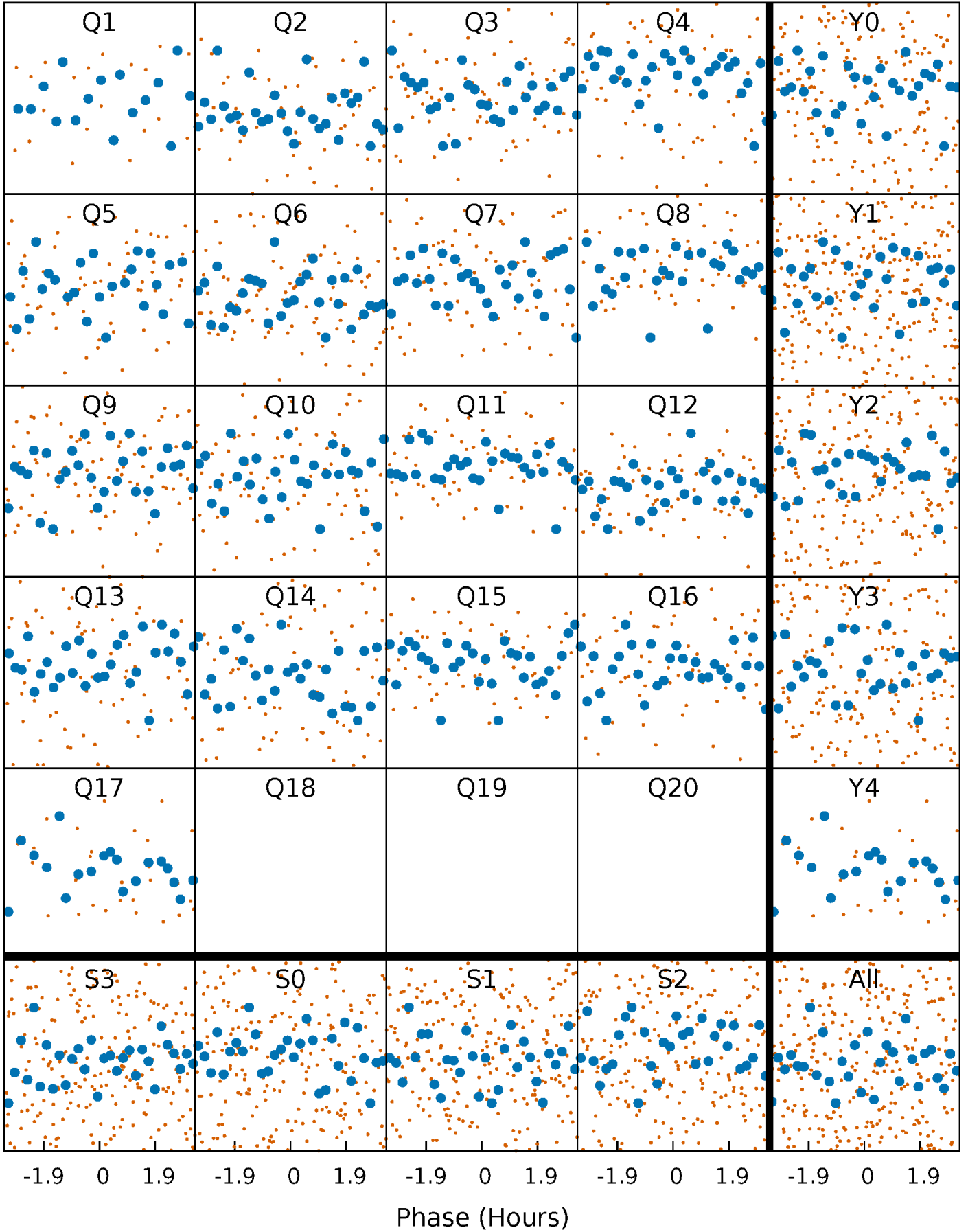


Non-Whitened Vs. Whitened Light Curve



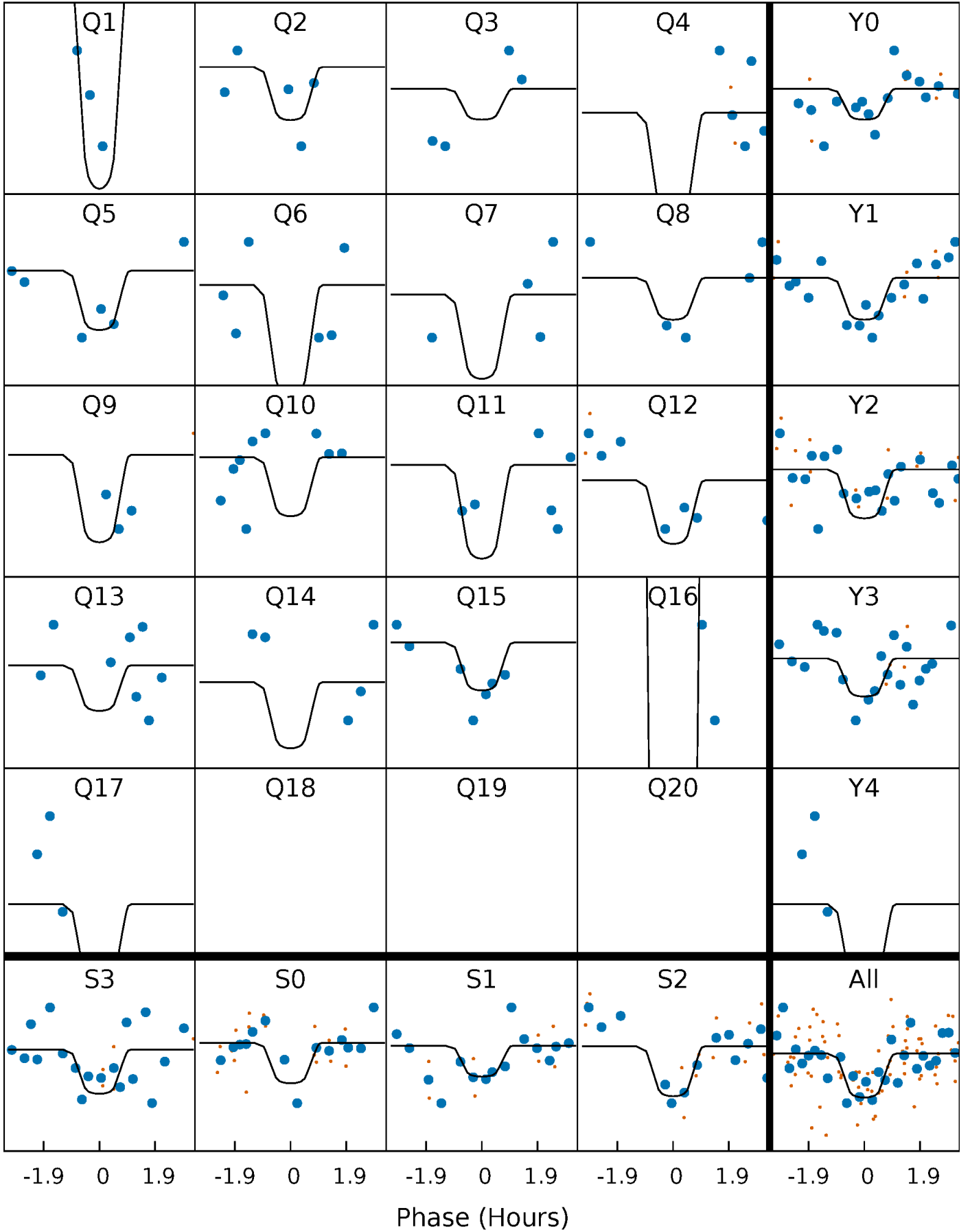
PDC Quarter-Phased Transit Curves

TCE 002579906-07 $P = 14.347177$ Days $T_0 = 138.905151$ (BKJD)



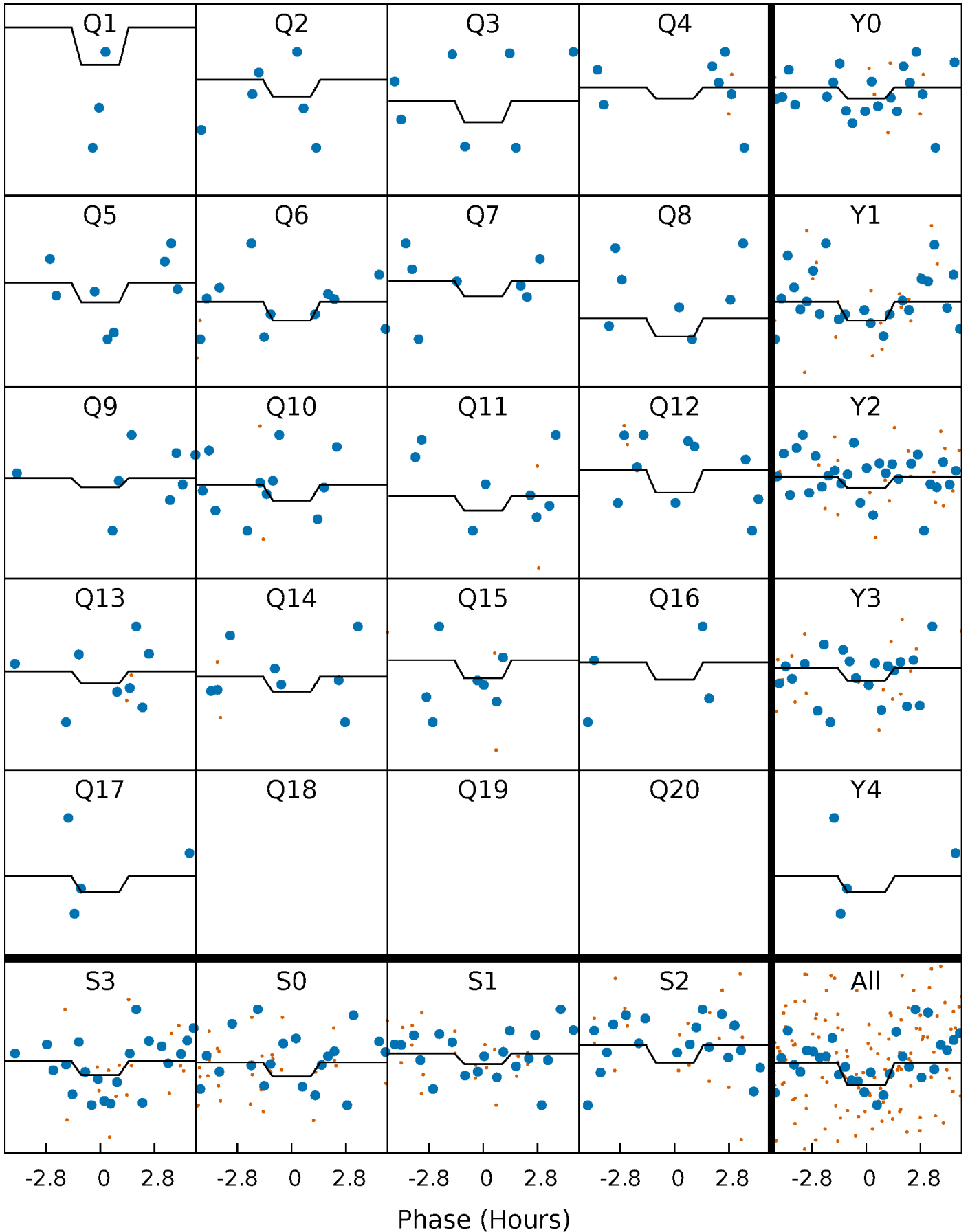
DV Quarter-Phased Transit Curves

TCE 002579906-07 P= 14.347177 Days $T_0=138.905151$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

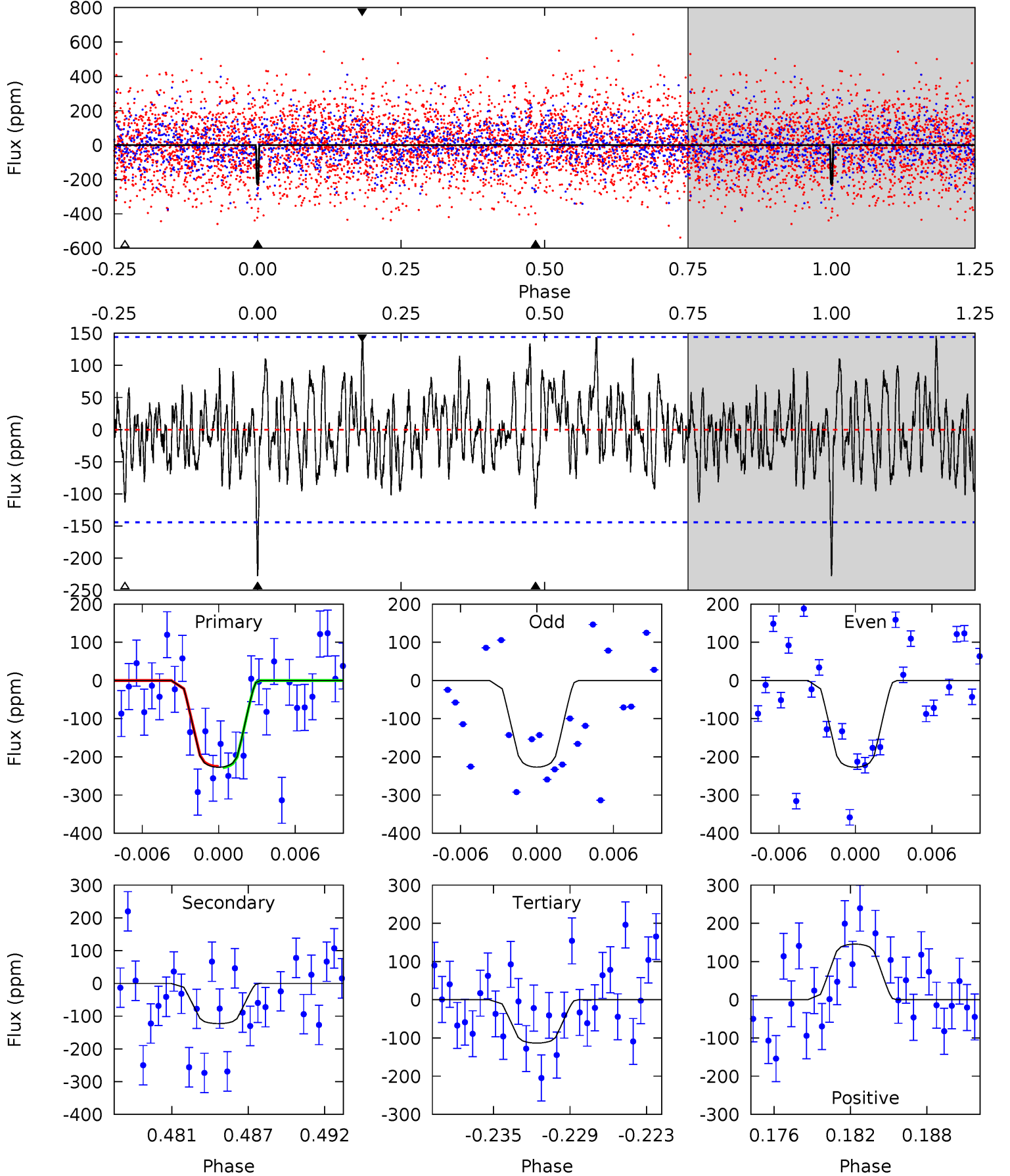
TCE 002579906-07 $P = 14.347134$ Days $T_0 = 138.892089$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-07, P = 14.347177 Days, E = 124.557974 Days

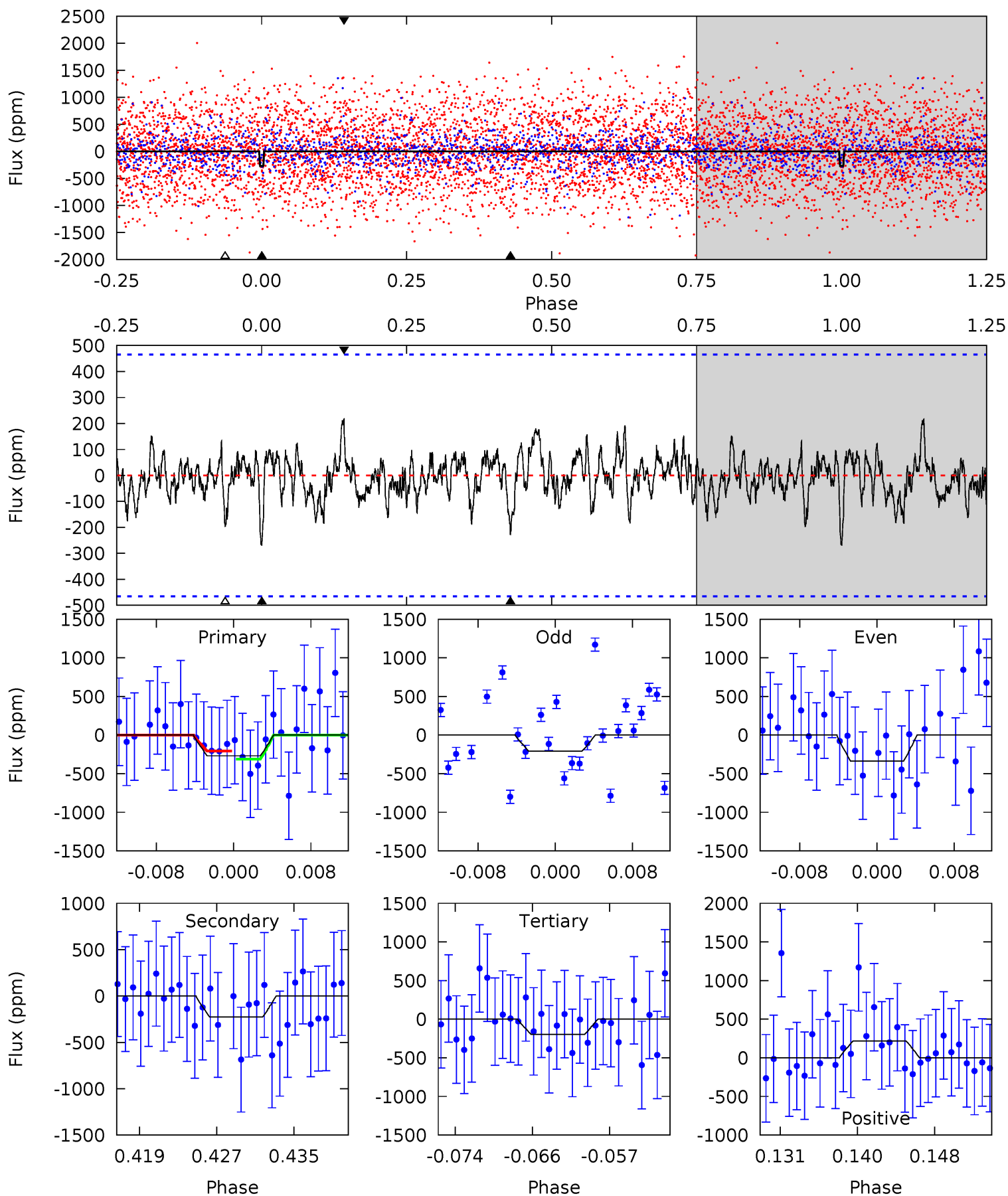
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.09	4.37	4.03	5.18	5.13	2.76	1.58	4.06	2.91	0.34	-0.81	0.00	0.97	0.39	0.05



Alt Model-Shift Uniqueness Test

002579906-07, P = 14.347134 Days, E = 124.544955 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.92	2.45	2.15	2.36	5.06	2.64	0.75	0.77	0.56	0.30	0.09	0.69	0.89	0.45	0.56



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-123 ± 28	$5.03^{+3.79}_{-2.90}$	2013^{+139}_{-226}	5682^{+3326}_{-1138}	48^{+218}_{-31}
Alt.	-225 ± 92	$4.86^{+3.38}_{-2.68}$	2009^{+144}_{-228}	6654^{+4662}_{-1534}	96^{+427}_{-66}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

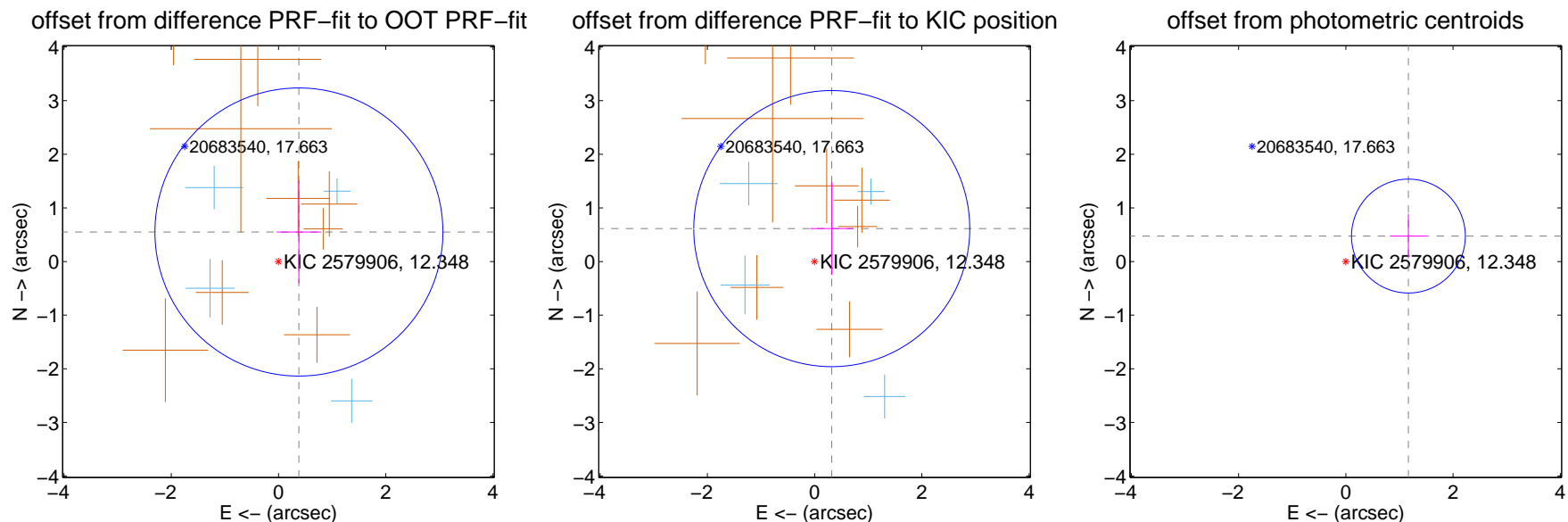
DV Centroid Data

Supplemental centroid analysis for 002579906-07. Kepler magnitude: 12.35. Transit SNR 14.84

There are 4 quarters with good PRF difference image offsets

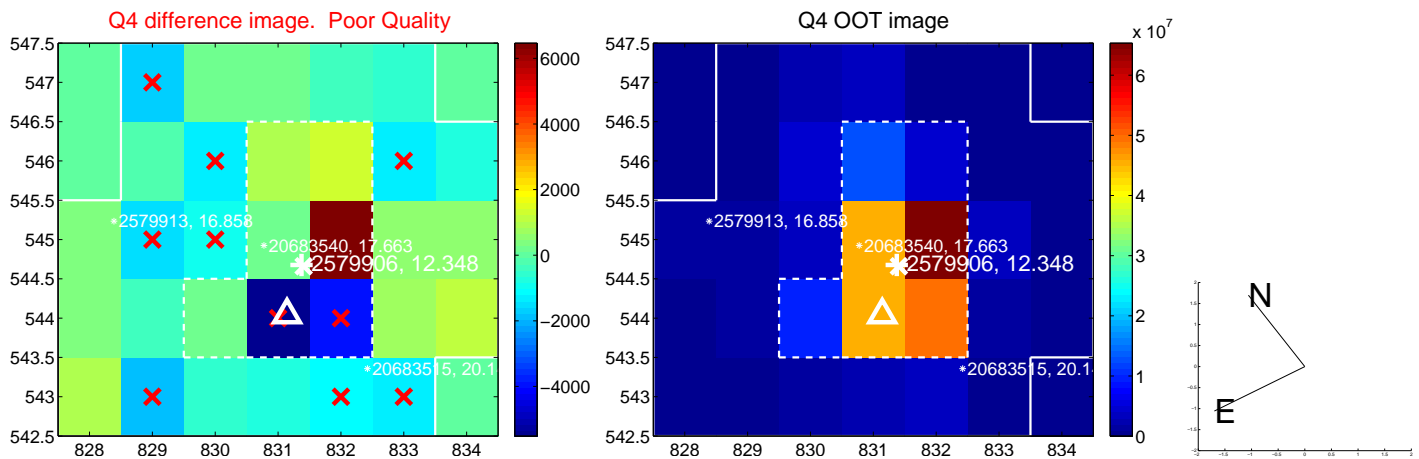
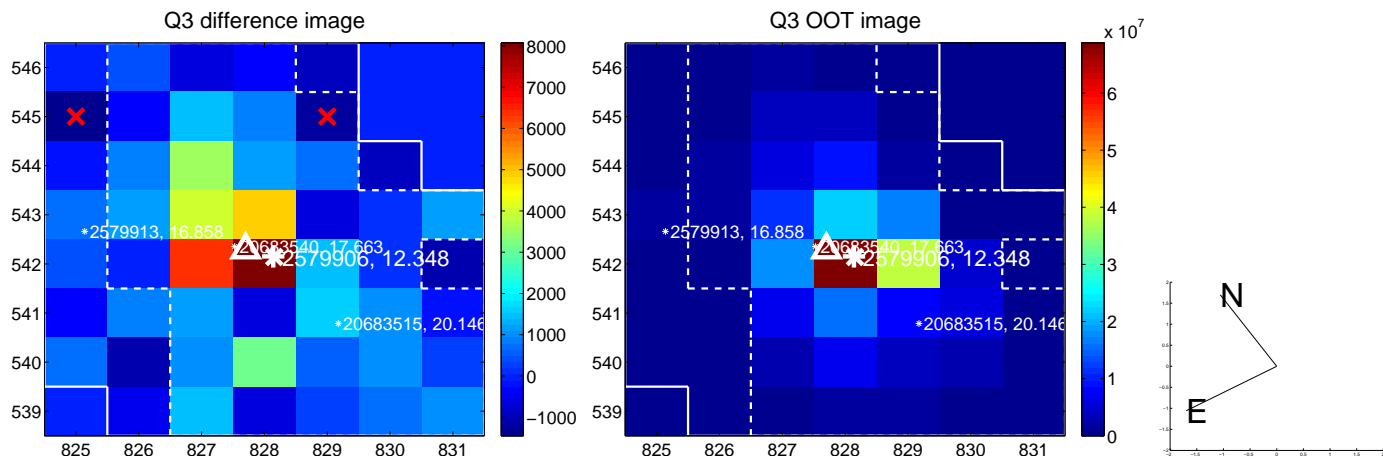
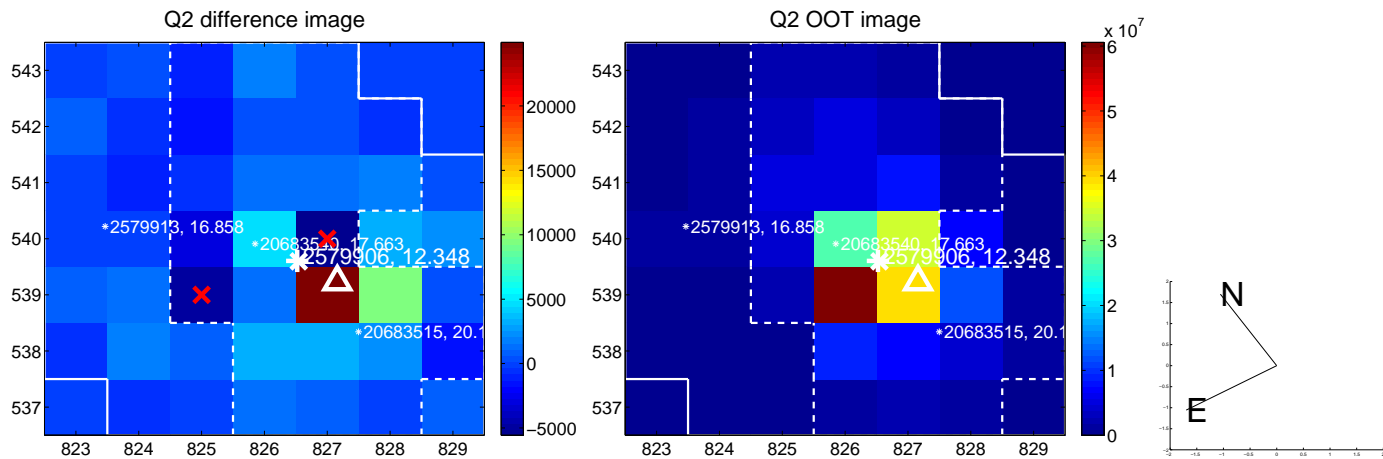
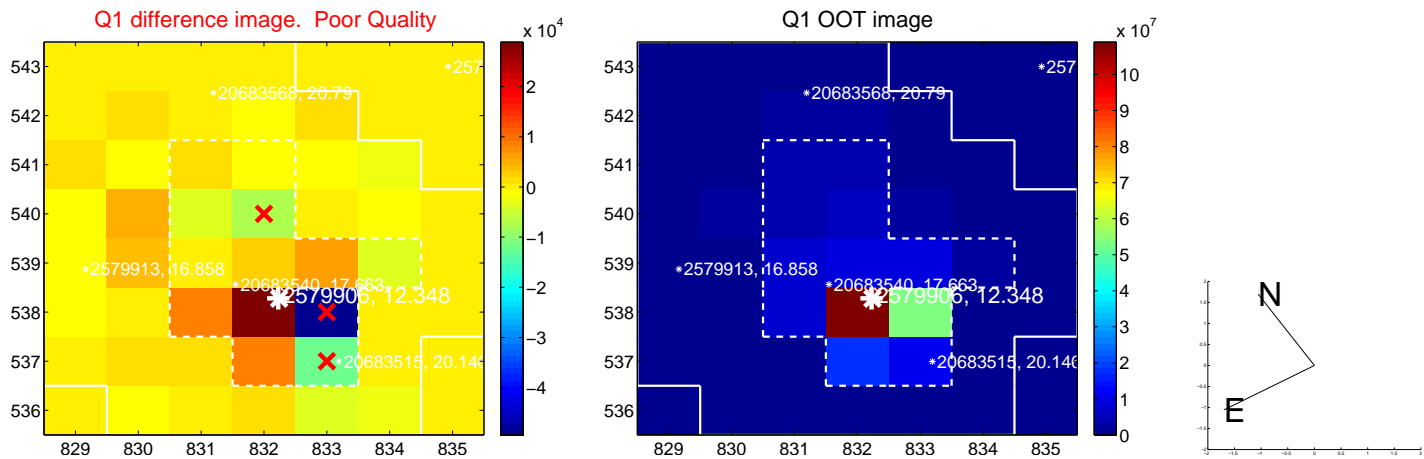
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.669 ± 0.895	0.75	-0.381 ± 0.415	0.550 ± 0.956
PRF-fit source offset from KIC position	0.692 ± 0.858	0.81	-0.320 ± 0.400	0.614 ± 0.863
photometric centroid source offset	1.26 ± 0.35	3.56	-1.17 ± 0.34	0.47 ± 0.42

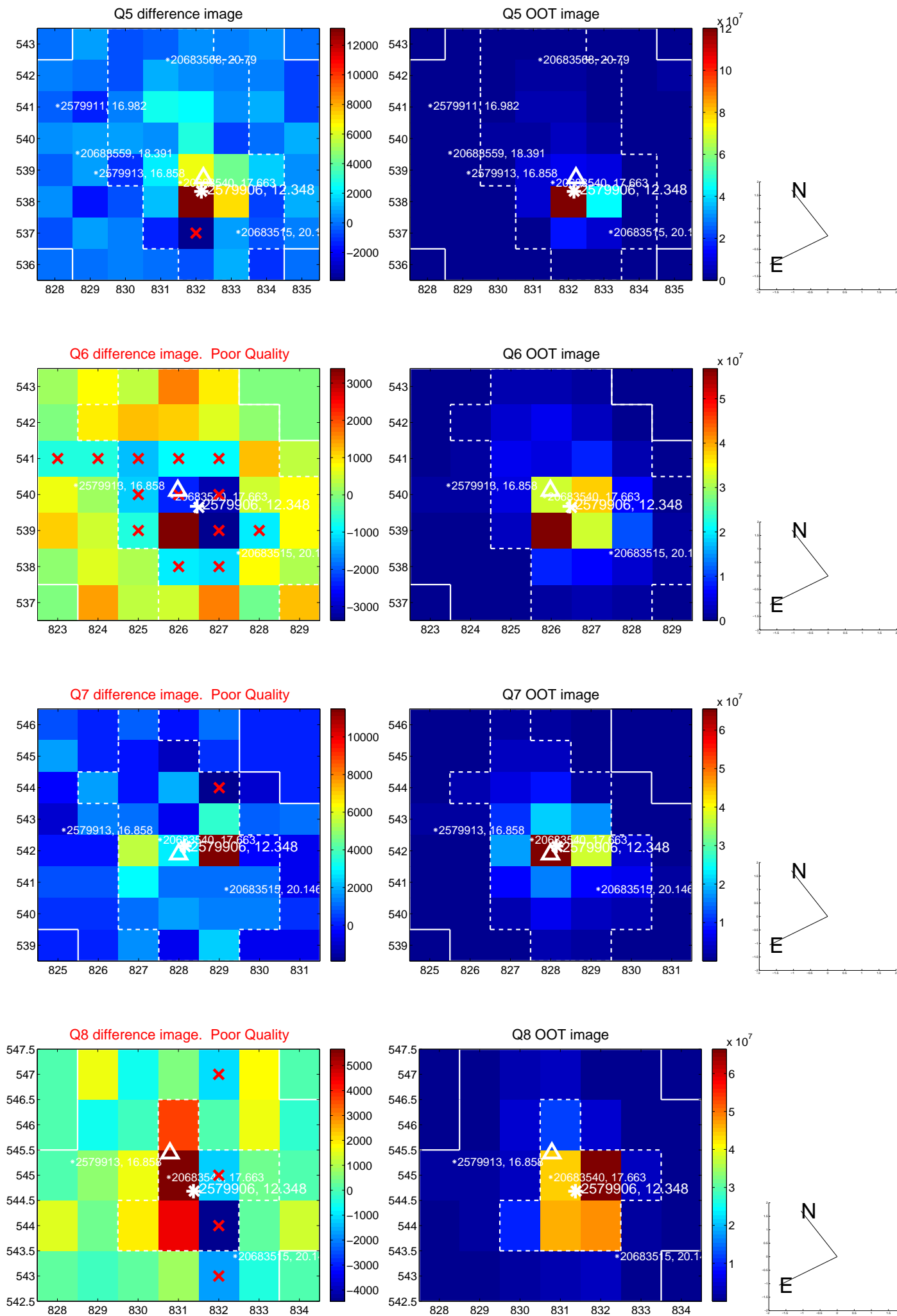


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

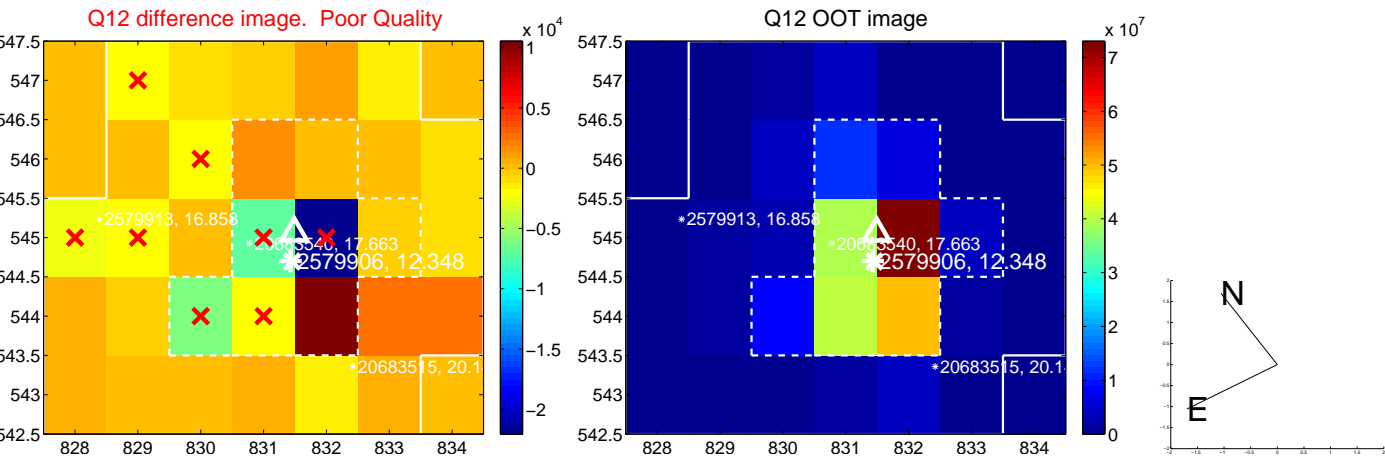
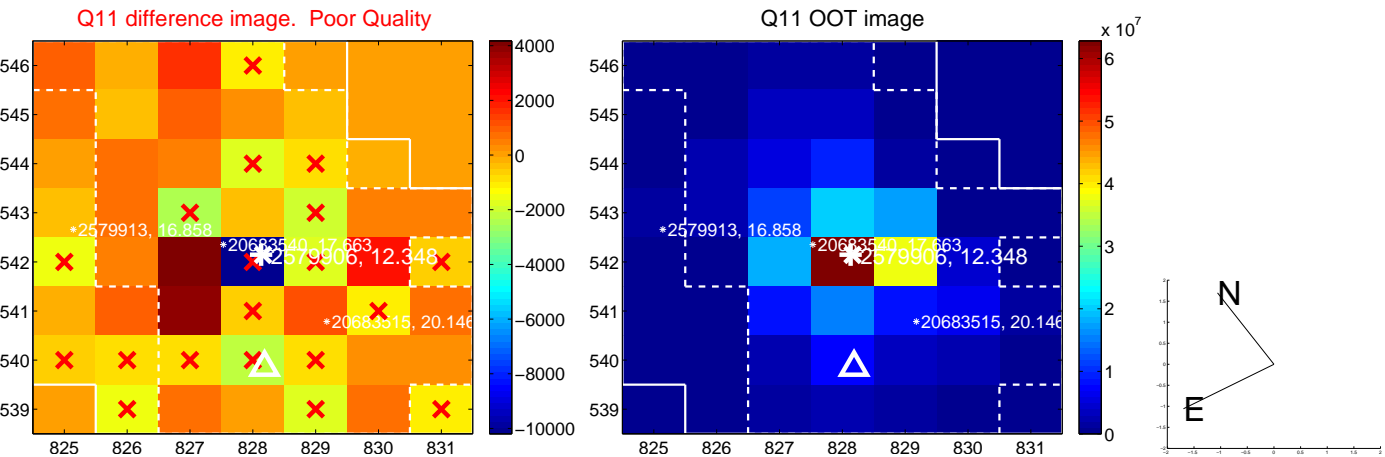
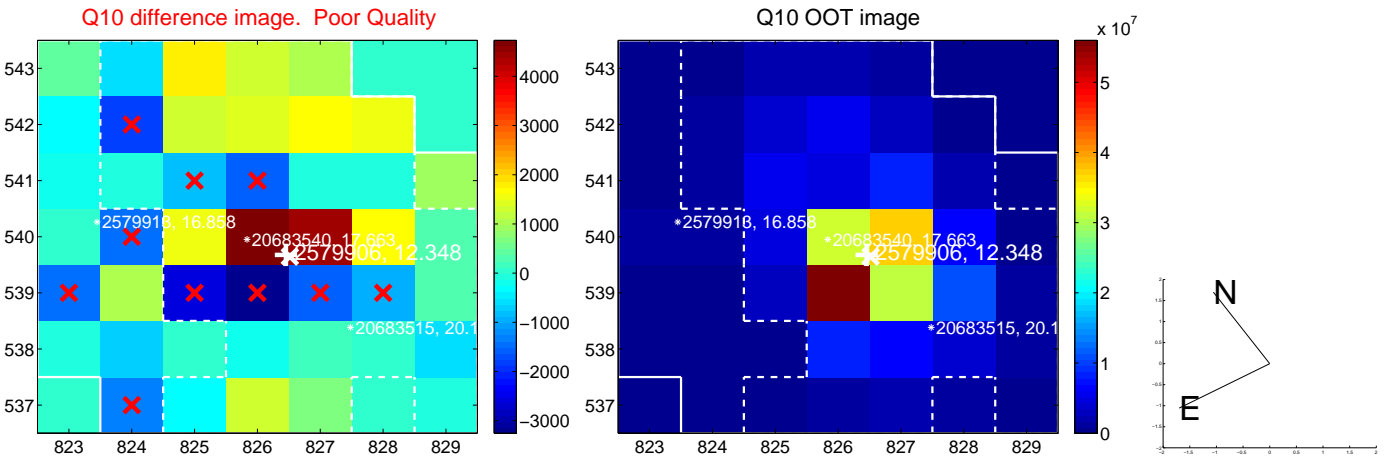
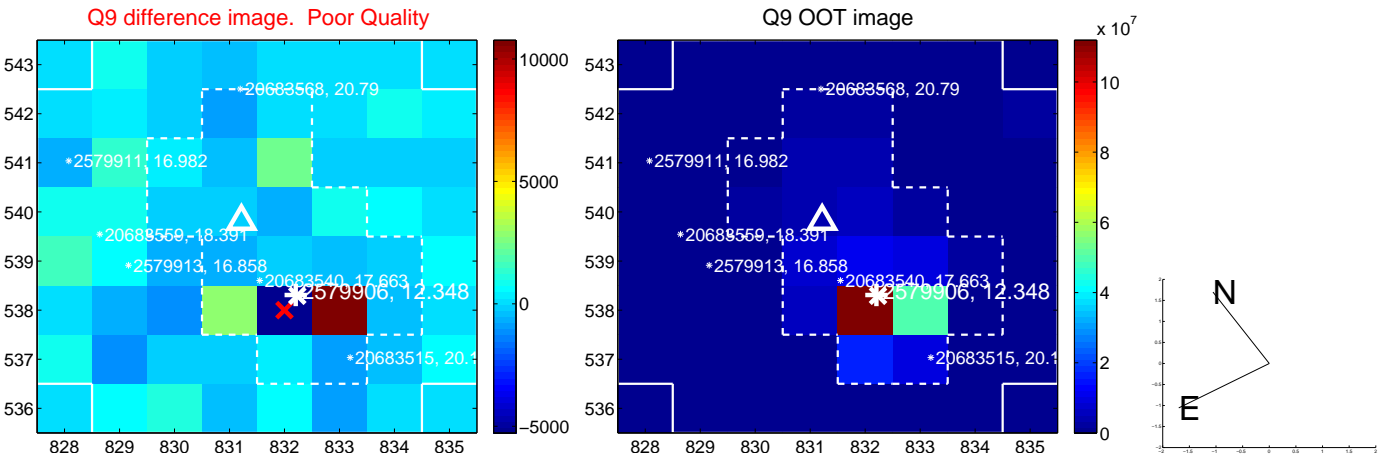
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



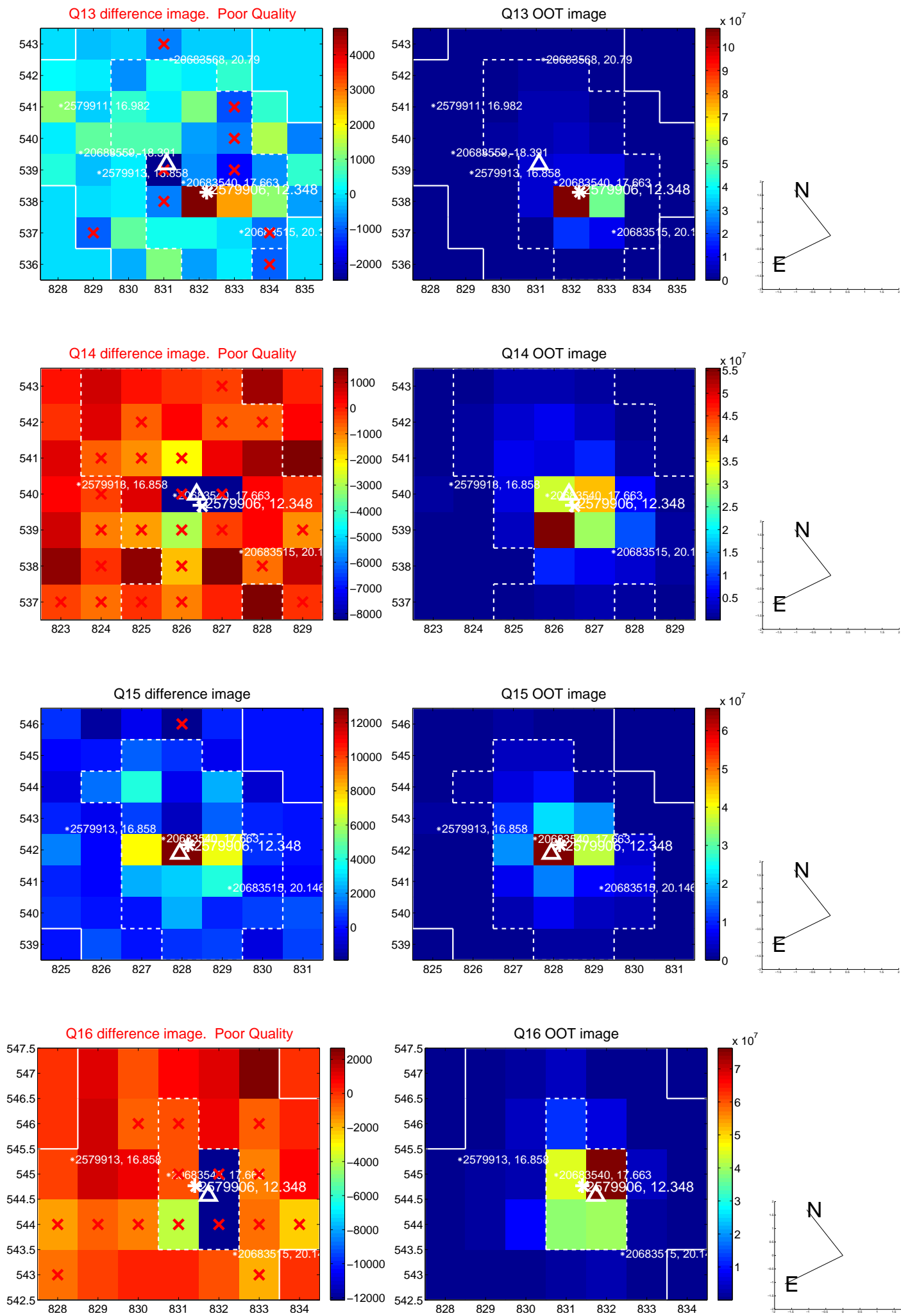
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



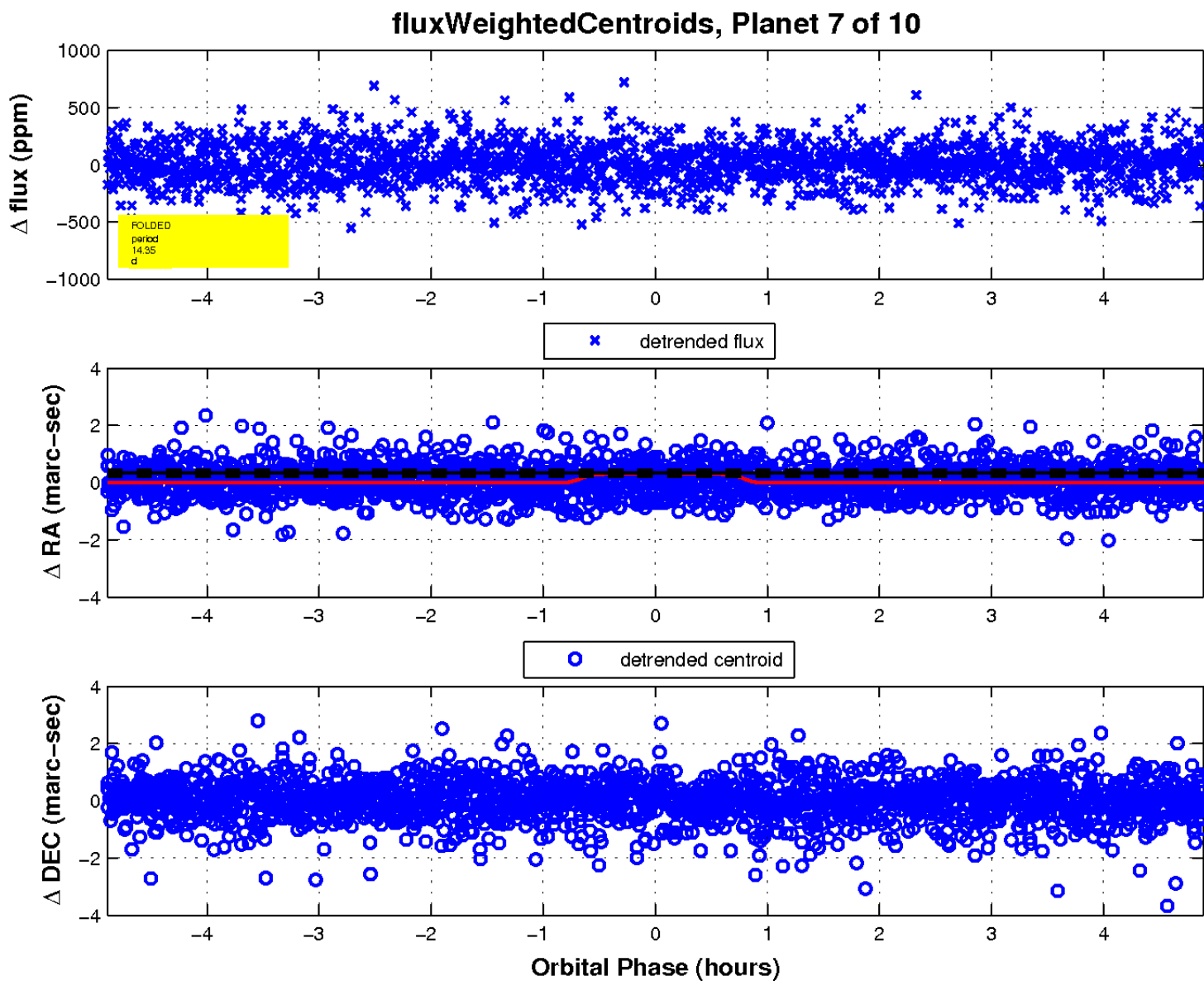
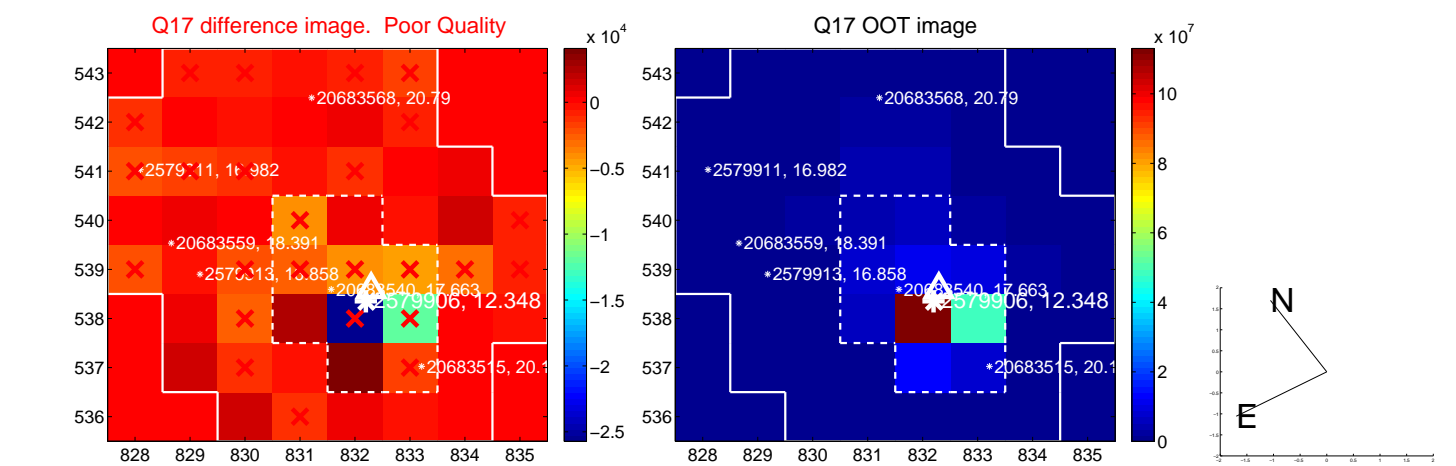
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



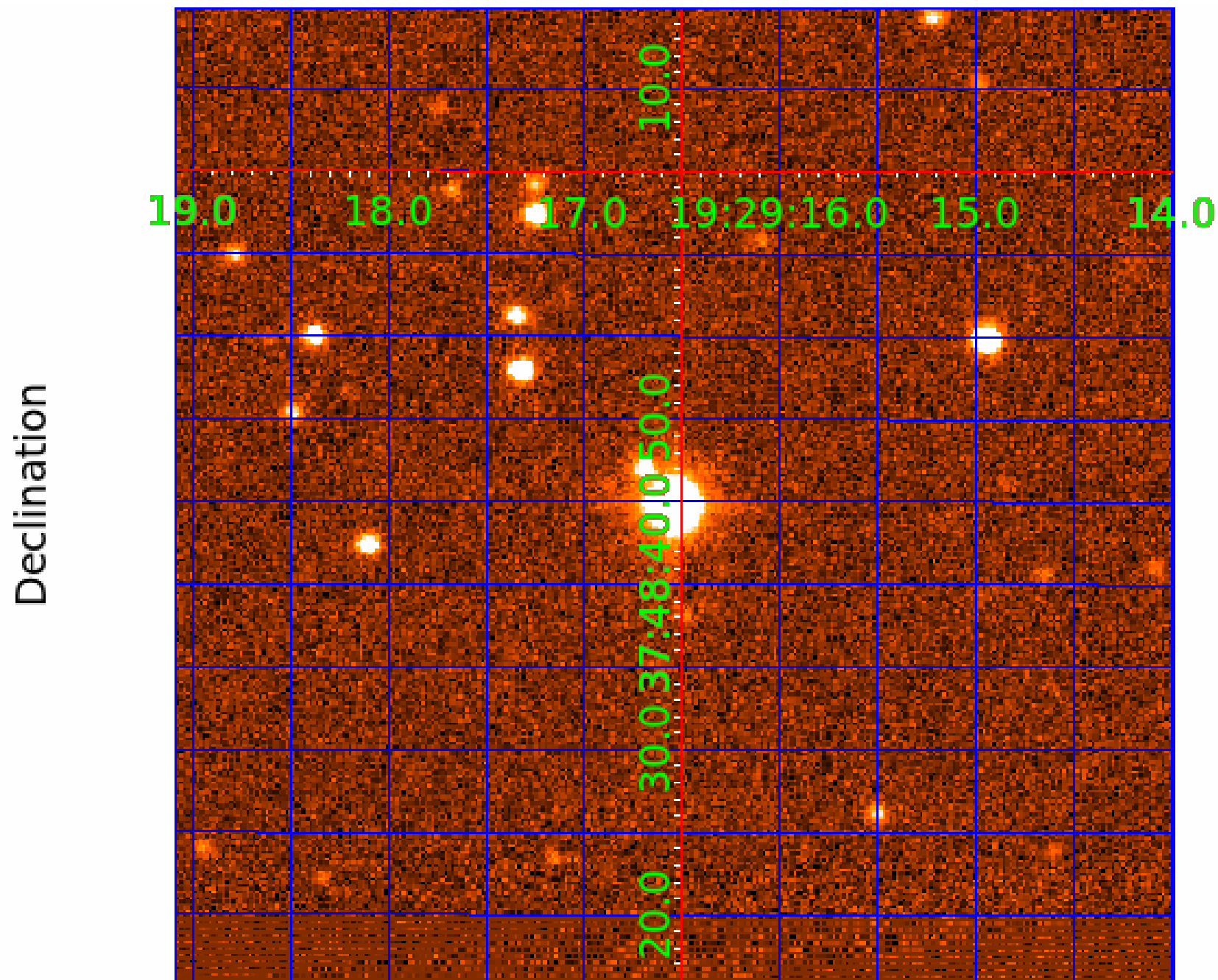
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

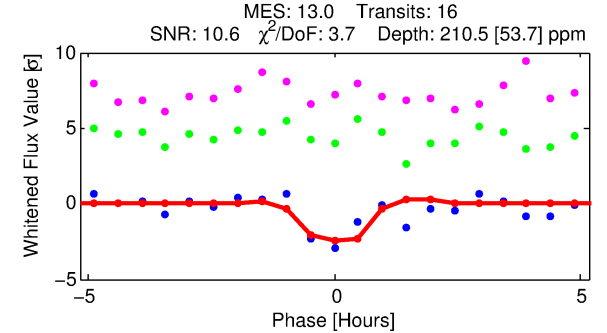
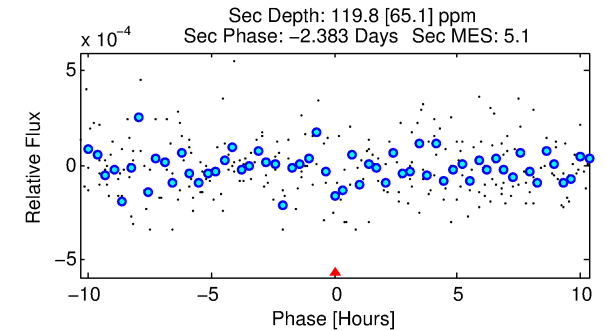
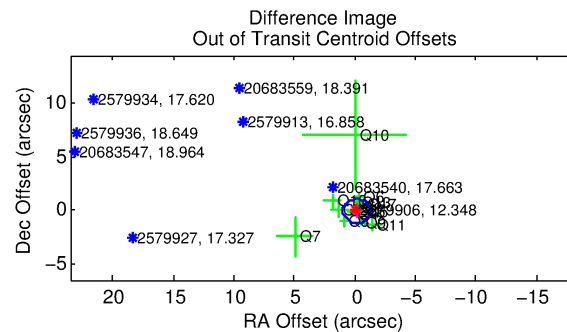
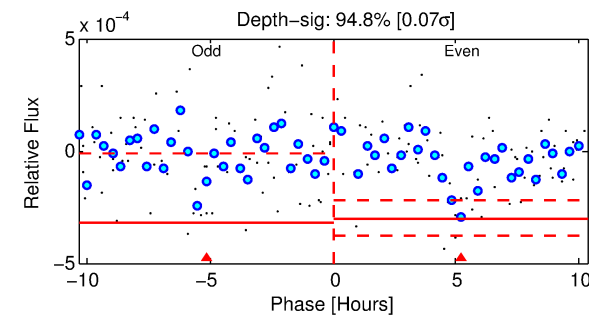
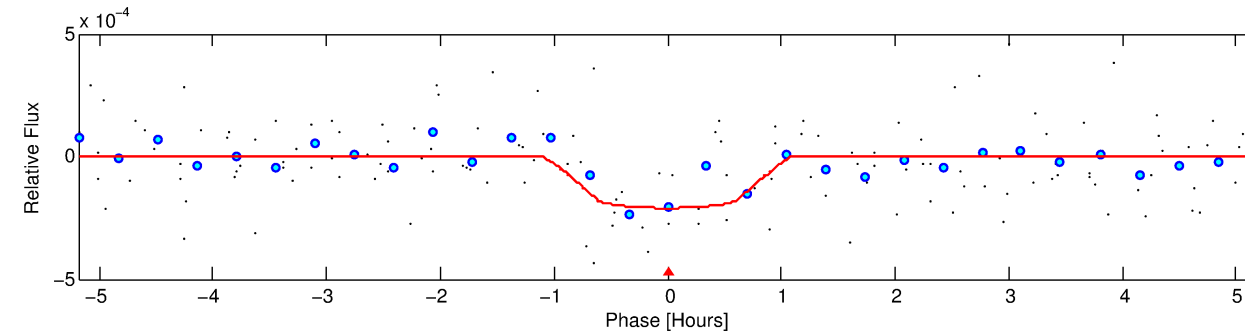
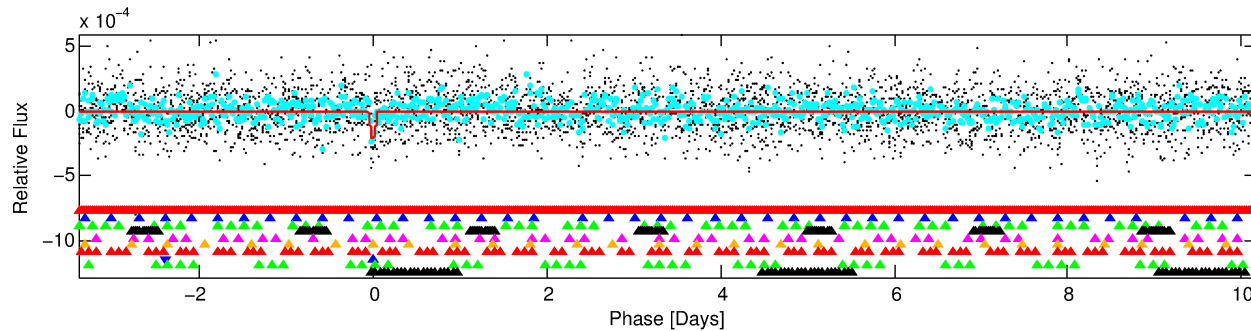
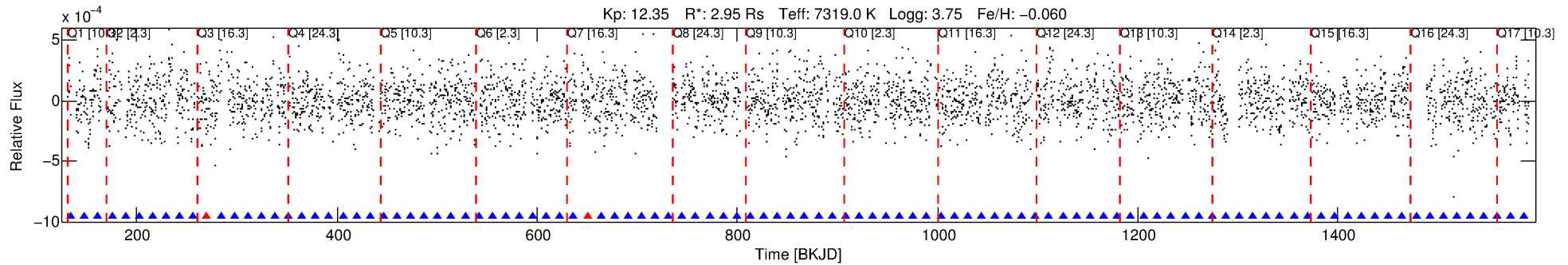
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-08

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 8 of 10 Period: 13.569 d



DV Fit Results:

Period = 13.56946 [0.00017] d
Epoch = 134.5630 [0.0105] BKJD
Rp/R* = 0.0135 [0.0317]
a/R* = 60.75 [834.85]
b = 0.04 [359.40]
Seff = 1226.30 [888.04]
Teq = 1509 [273] K
Rp = 4.35 [10.40] Re
a = 0.1351 [0.0588] AU
Ag = 63.71 [304.86] [0.21σ]
Teffp = 6591 [7803] K [0.65σ]

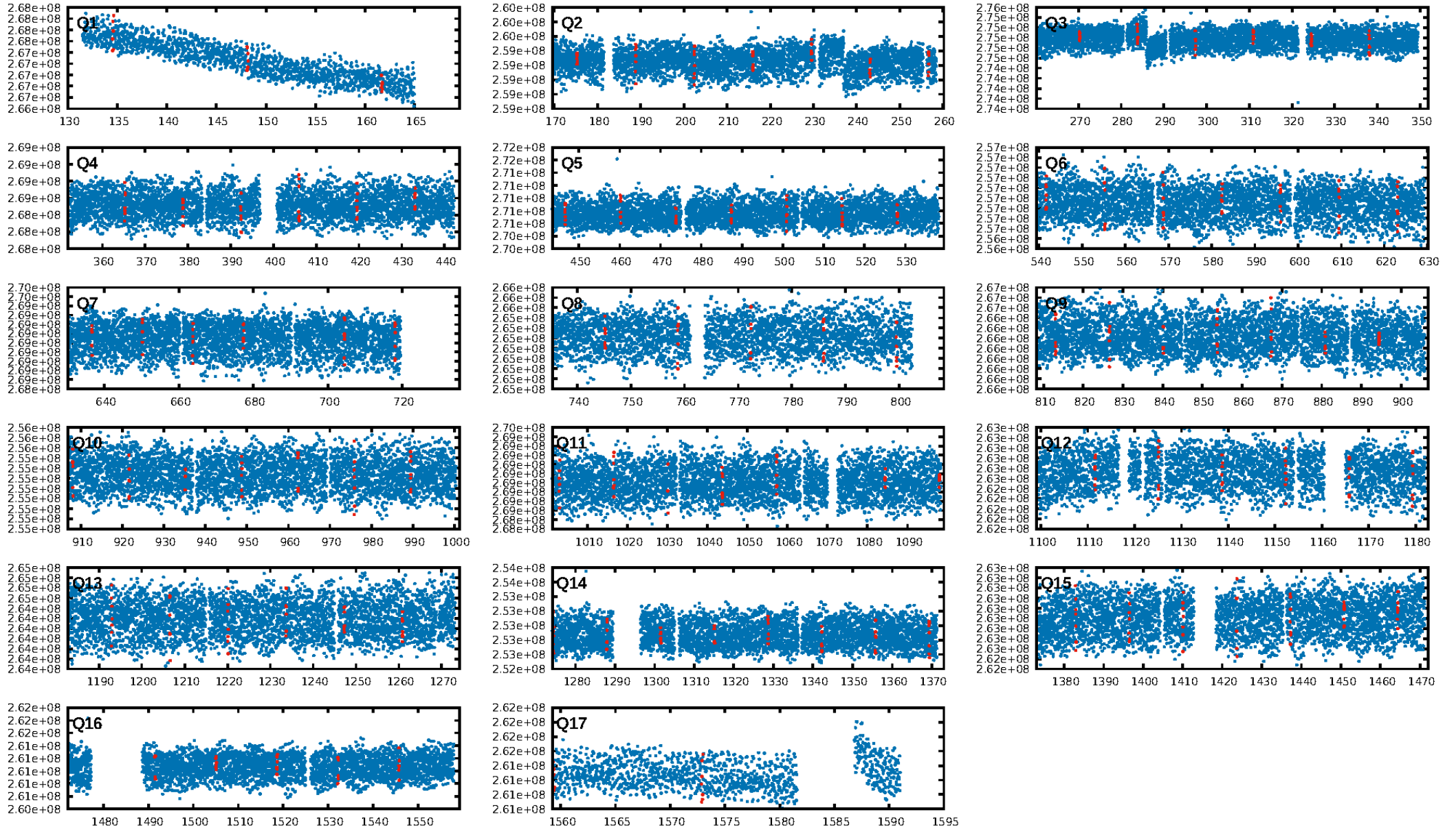
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [63.90σ]
LongPeriod-sig: 100.0% [7.86σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 48.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.87 [13/15]
GhostDiagnostic-chr: 1.662
Centroid-sig: N/A
Centroid-so: 0.211 arcsec [0.55σ]
OotOffset-rm: 0.145 arcsec [0.39σ]
KicOffset-rm: 0.067 arcsec [0.17σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-st: 3/4/3/4 [14]
DiffImageQuality-fgm: 0.36 [5/14]
DiffImageOverlap-fno: 0.00 [0/17]

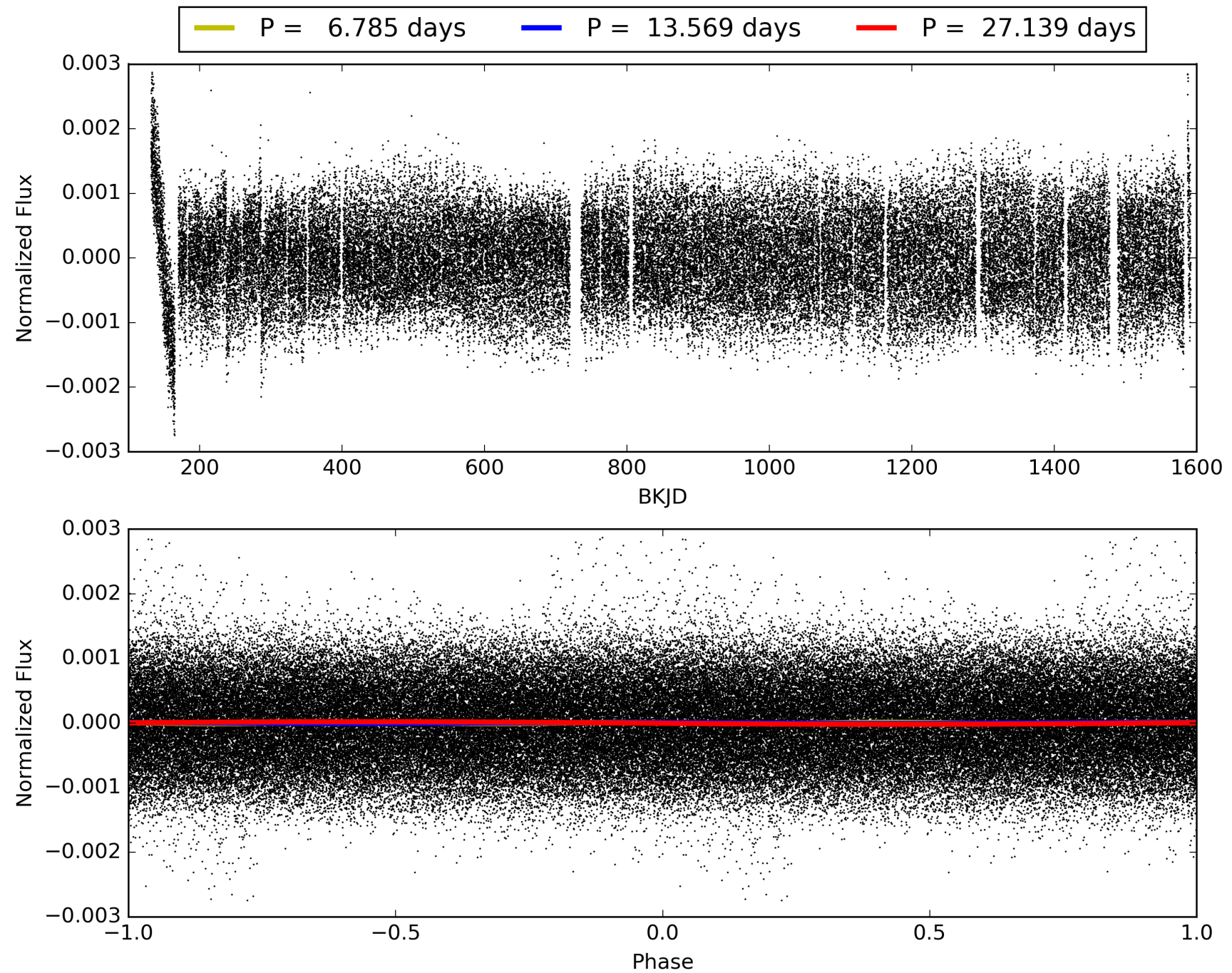
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:44 Z

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

TCE 002579906-08, PDC Light Curves

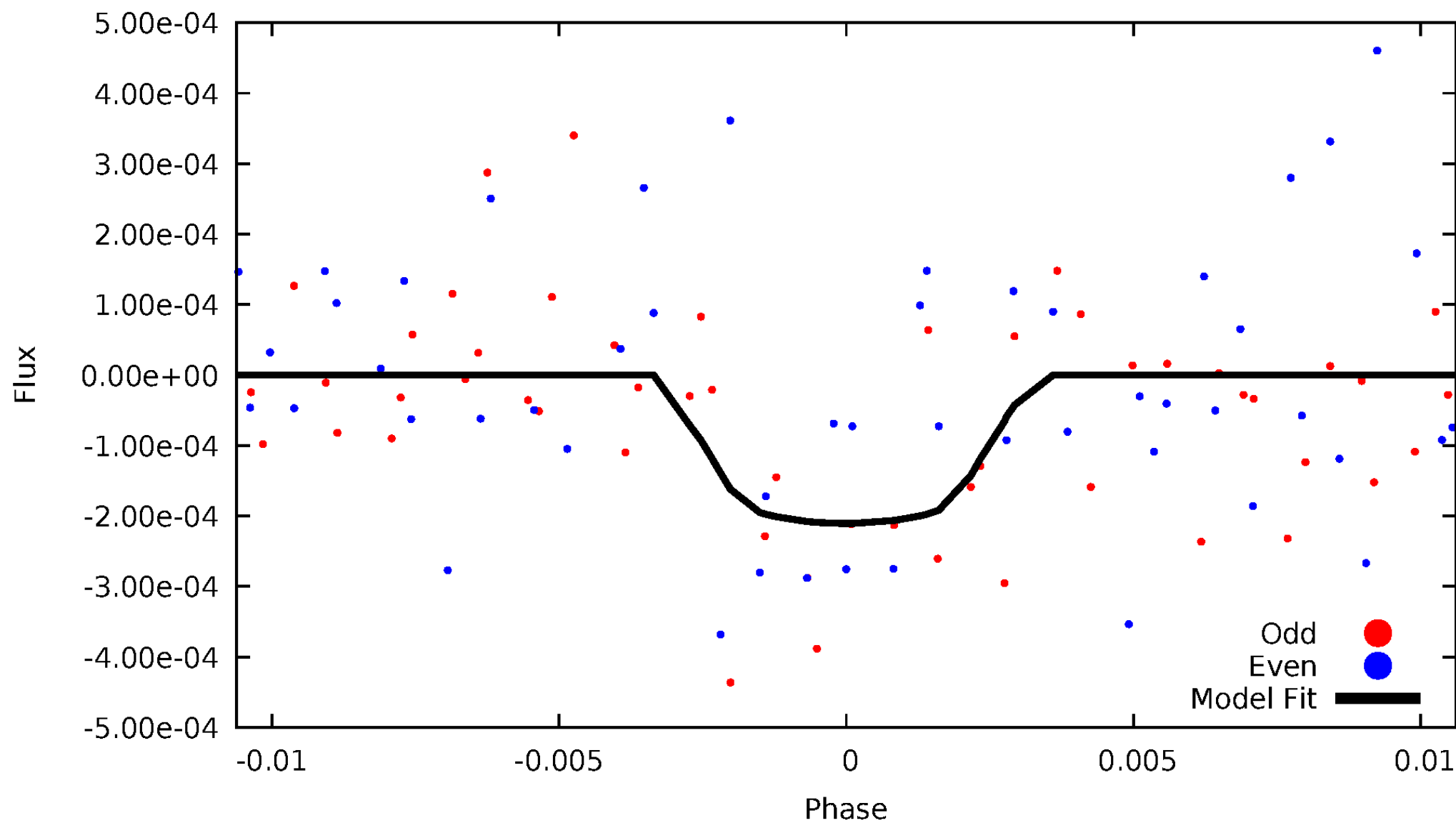


TCE 002579906-08



DV Odd/Even

TCE 002579906-08

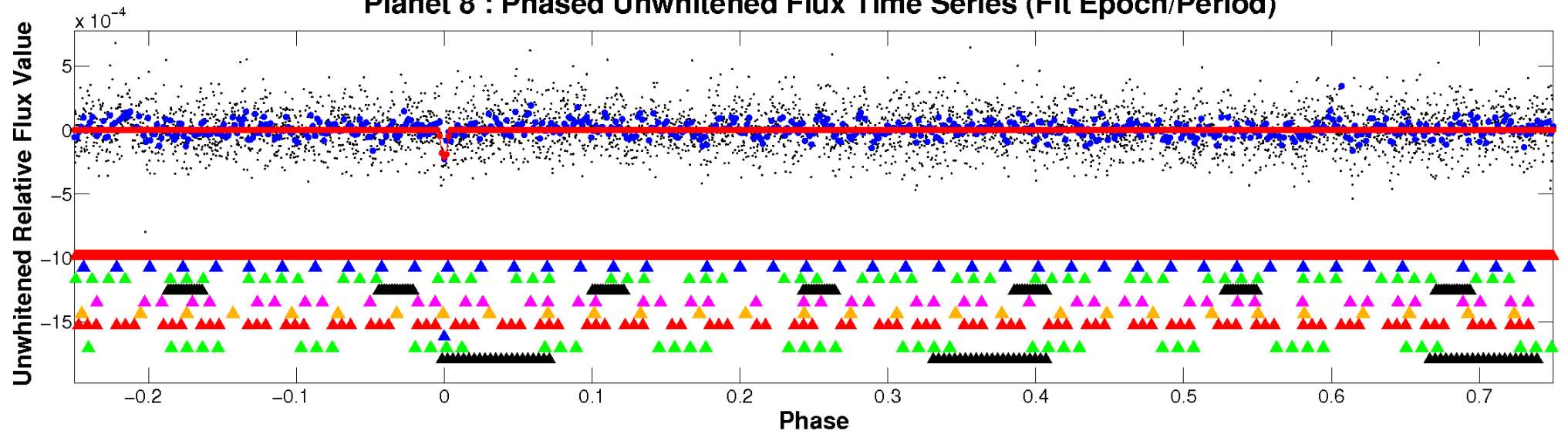


ALT Odd/Even

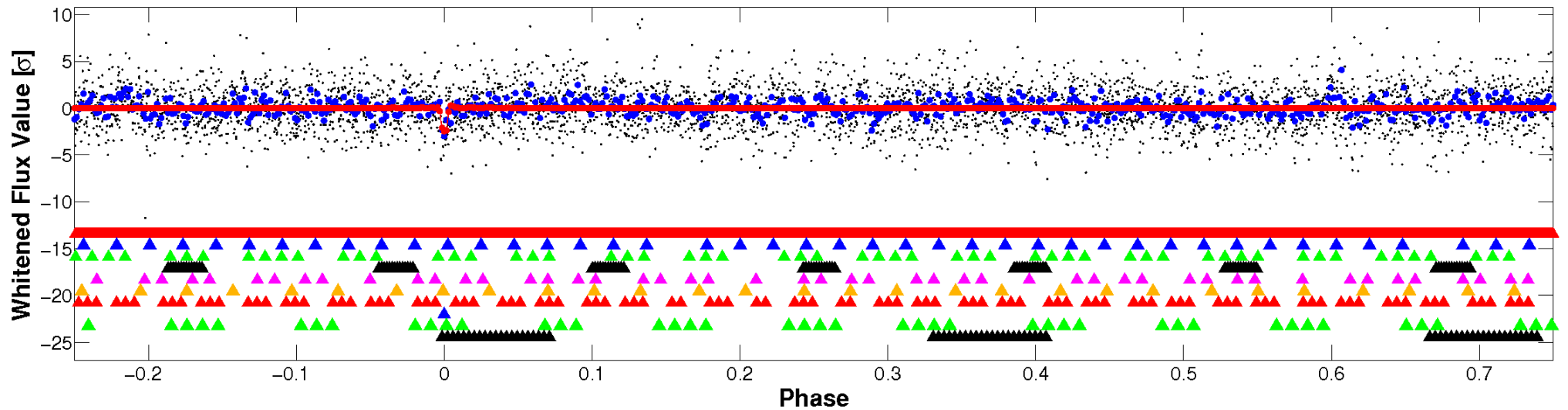
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

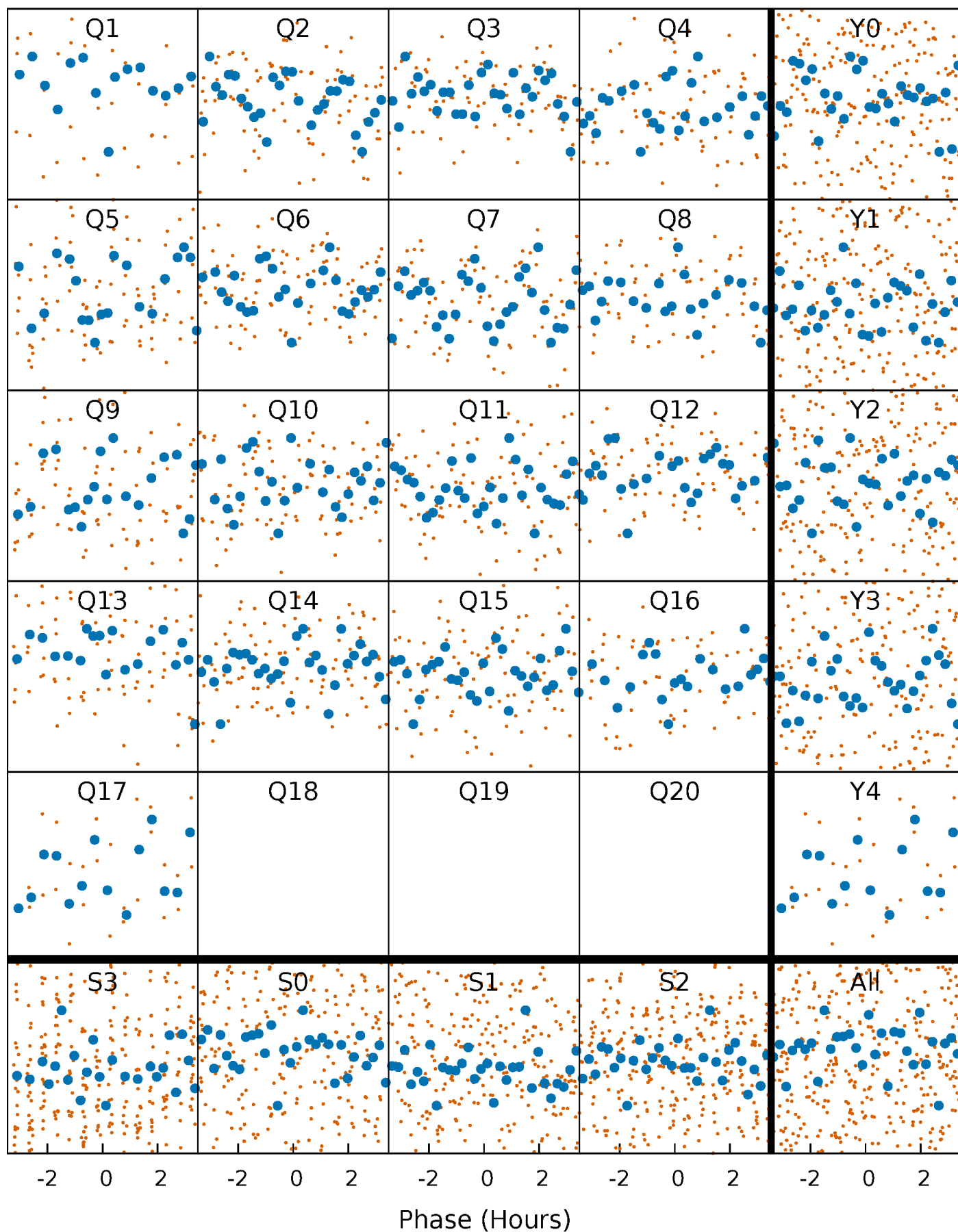


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



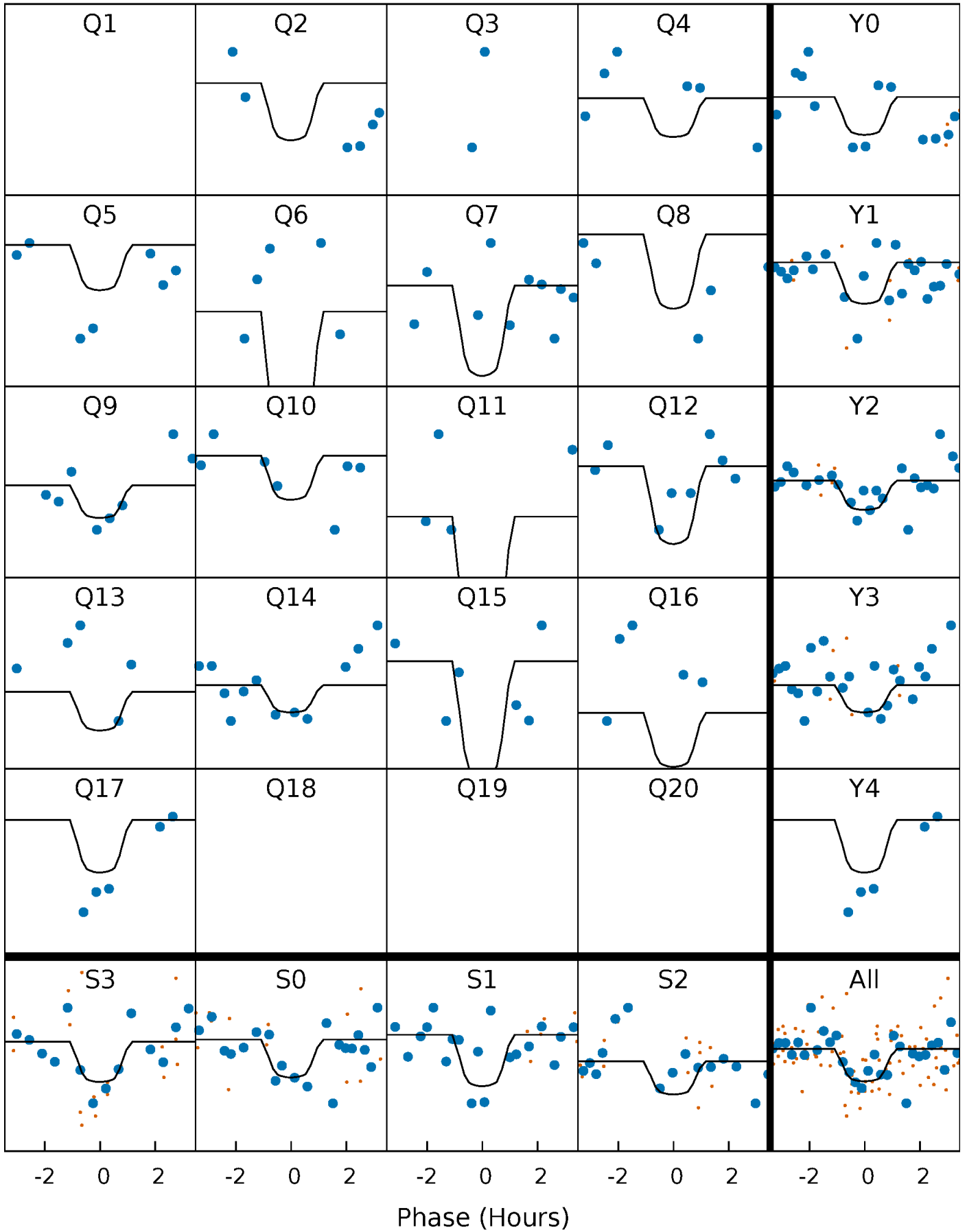
PDC Quarter-Phased Transit Curves

TCE 002579906-08 P= 13.569463 Days $T_0=134.562977$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 002579906-08 P= 13.569463 Days $T_0=134.562977$ (BKJD)

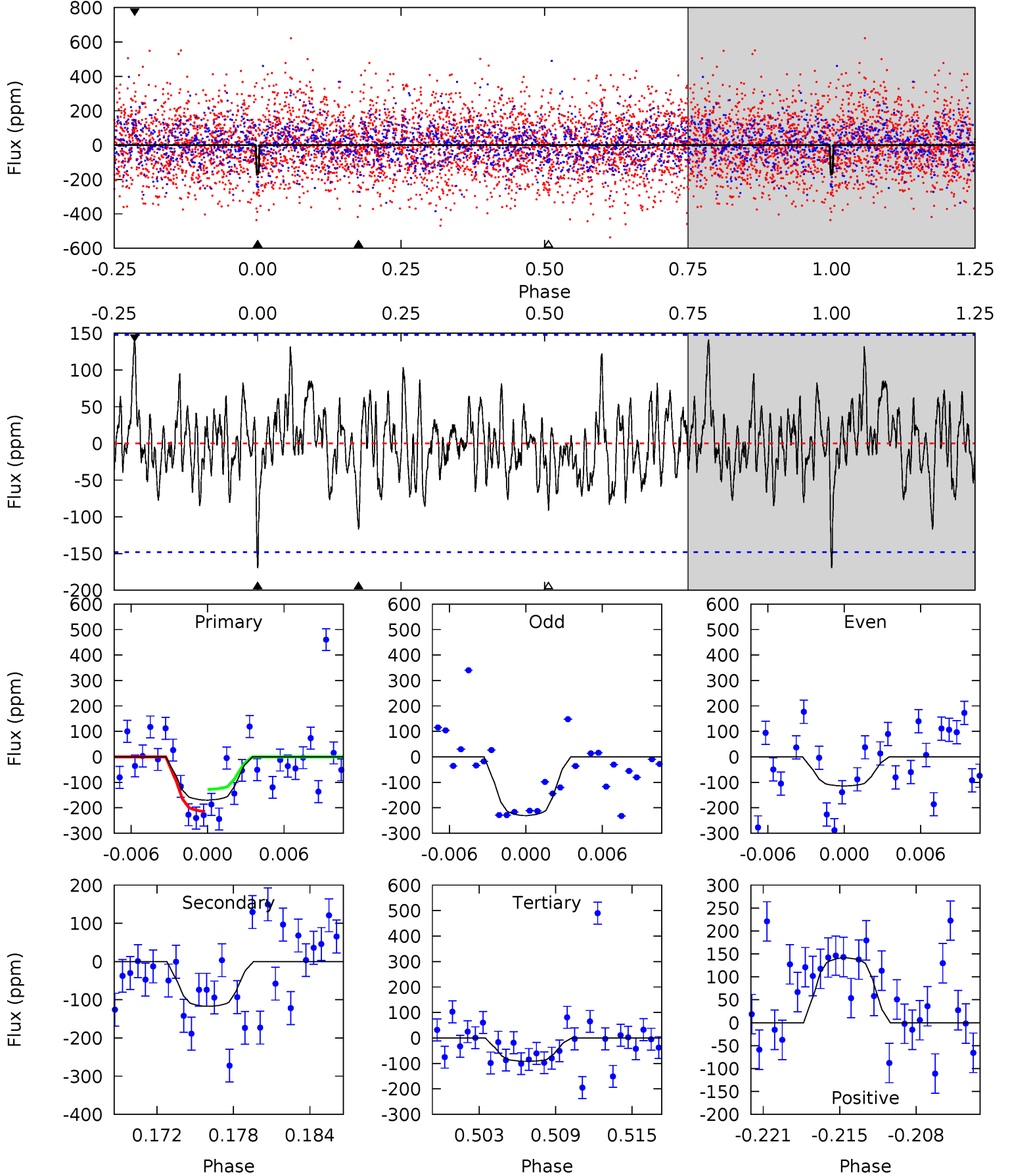


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

002579906-08, P = 13.569463 Days, E = 120.993514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.88	4.06	3.17	4.89	5.12	2.74	1.37	2.70	0.98	0.88	-0.84	2.01	0.81	0.45	1.49



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-117 ± 29	$7.98^{+7.53}_{-5.51}$	2045^{+144}_{-207}	4632^{+3609}_{-1006}	18^{+161}_{-13}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

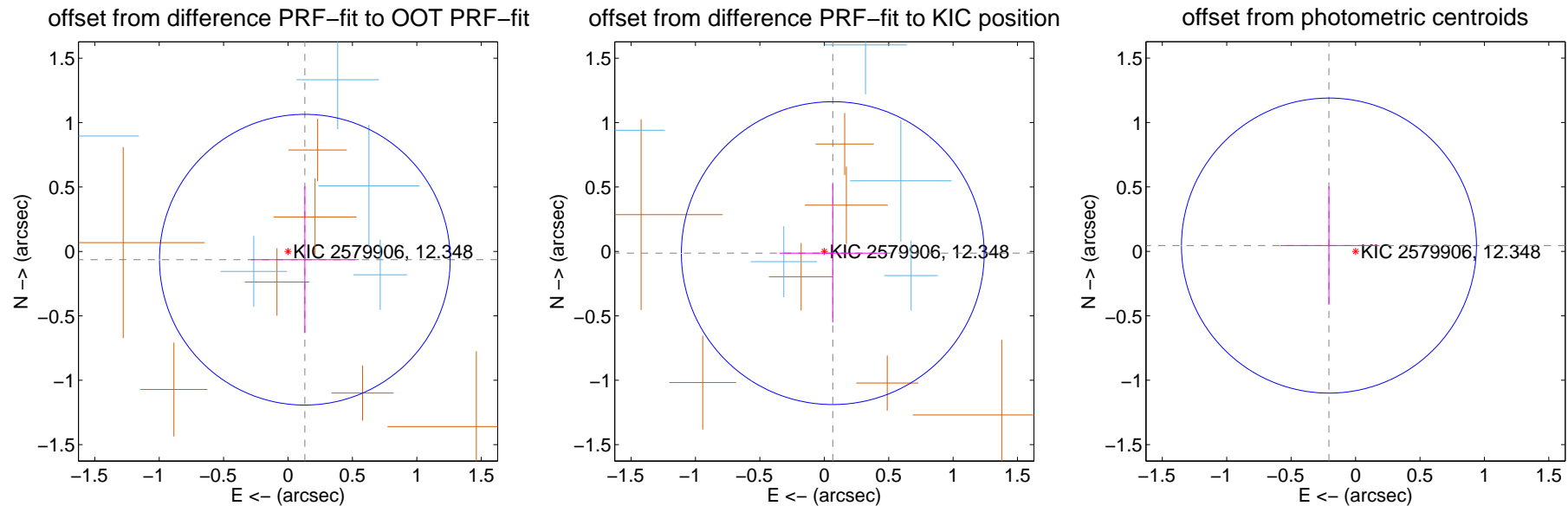
DV Centroid Data

Supplemental centroid analysis for 002579906-08. Kepler magnitude: 12.35. Transit SNR 10.64

There are 5 quarters with good PRF difference image offsets

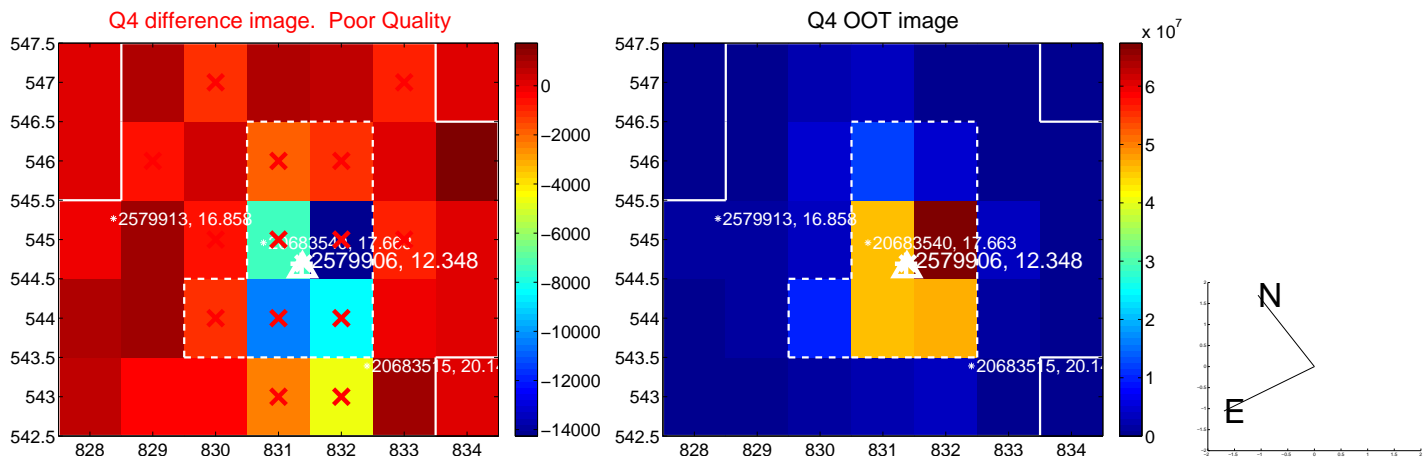
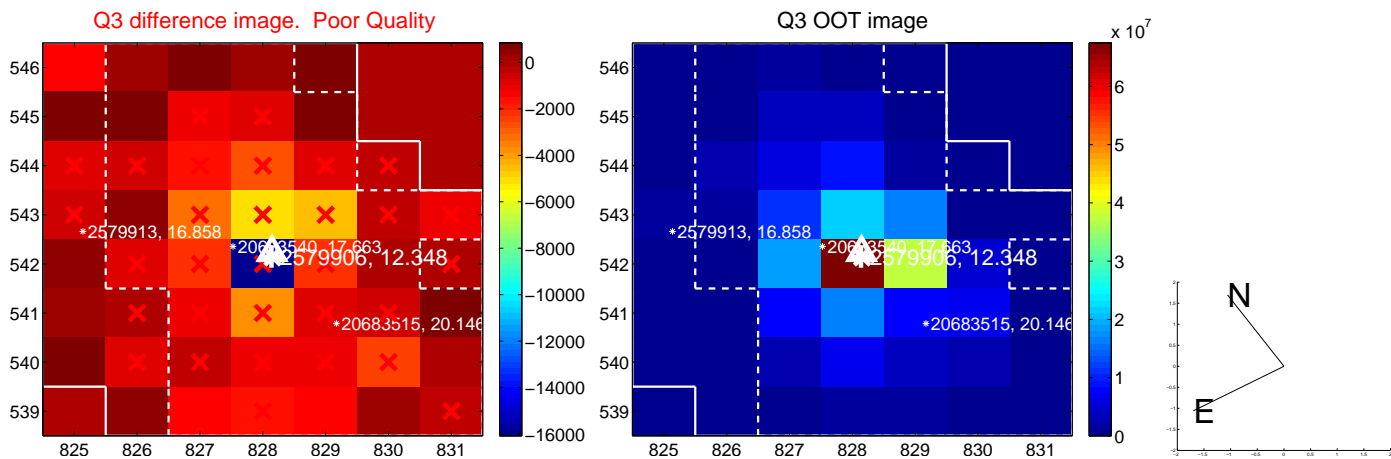
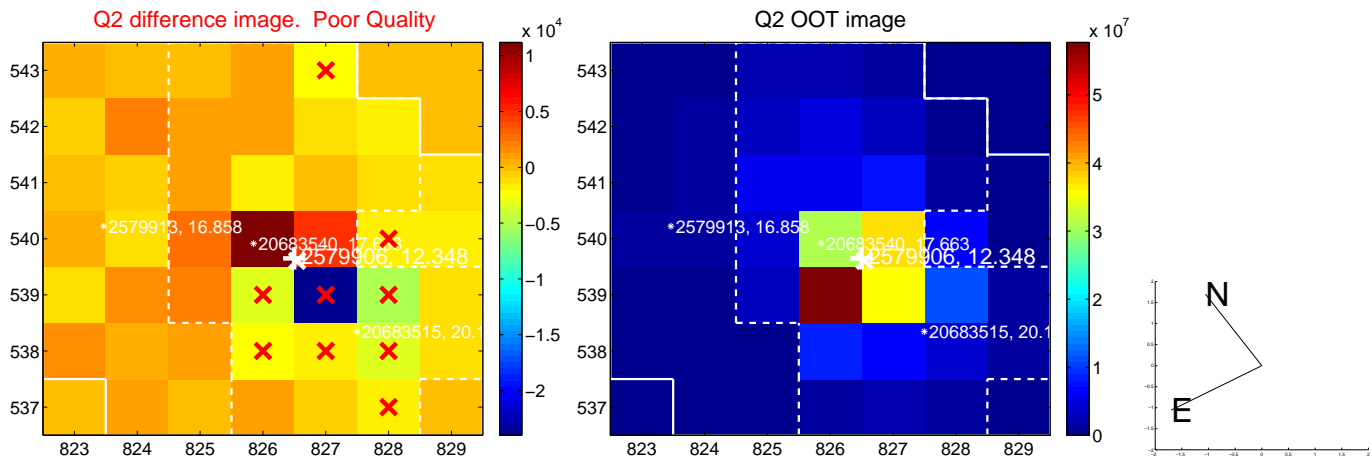
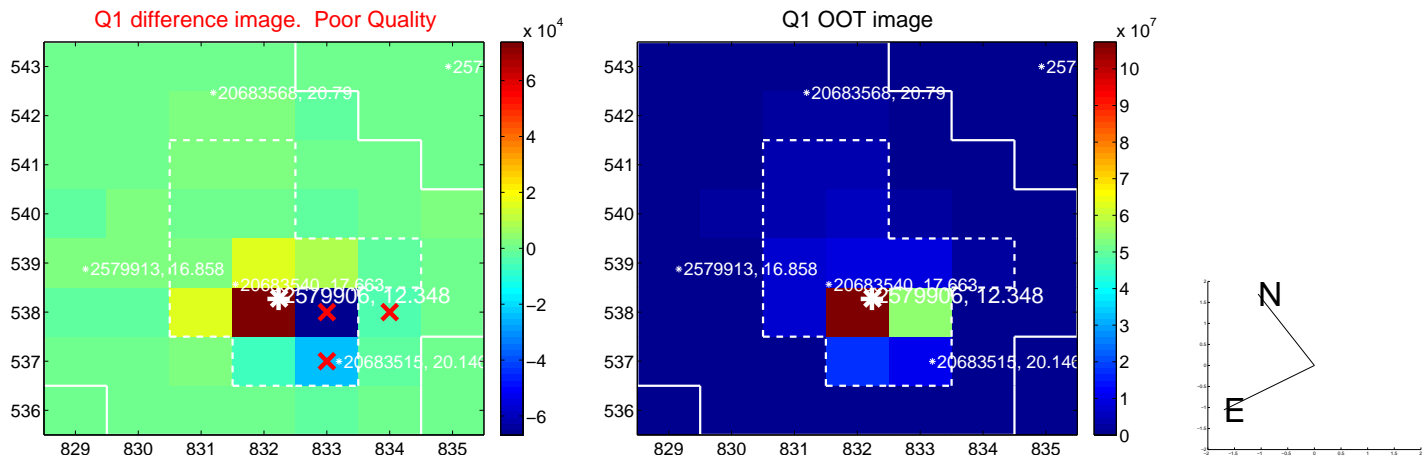
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.145 ± 0.376	0.39	-0.130 ± 0.417	-0.064 ± 0.570
PRF-fit source offset from KIC position	0.067 ± 0.392	0.17	-0.066 ± 0.414	-0.013 ± 0.538
photometric centroid source offset	0.21 ± 0.38	0.55	0.21 ± 0.38	0.04 ± 0.46

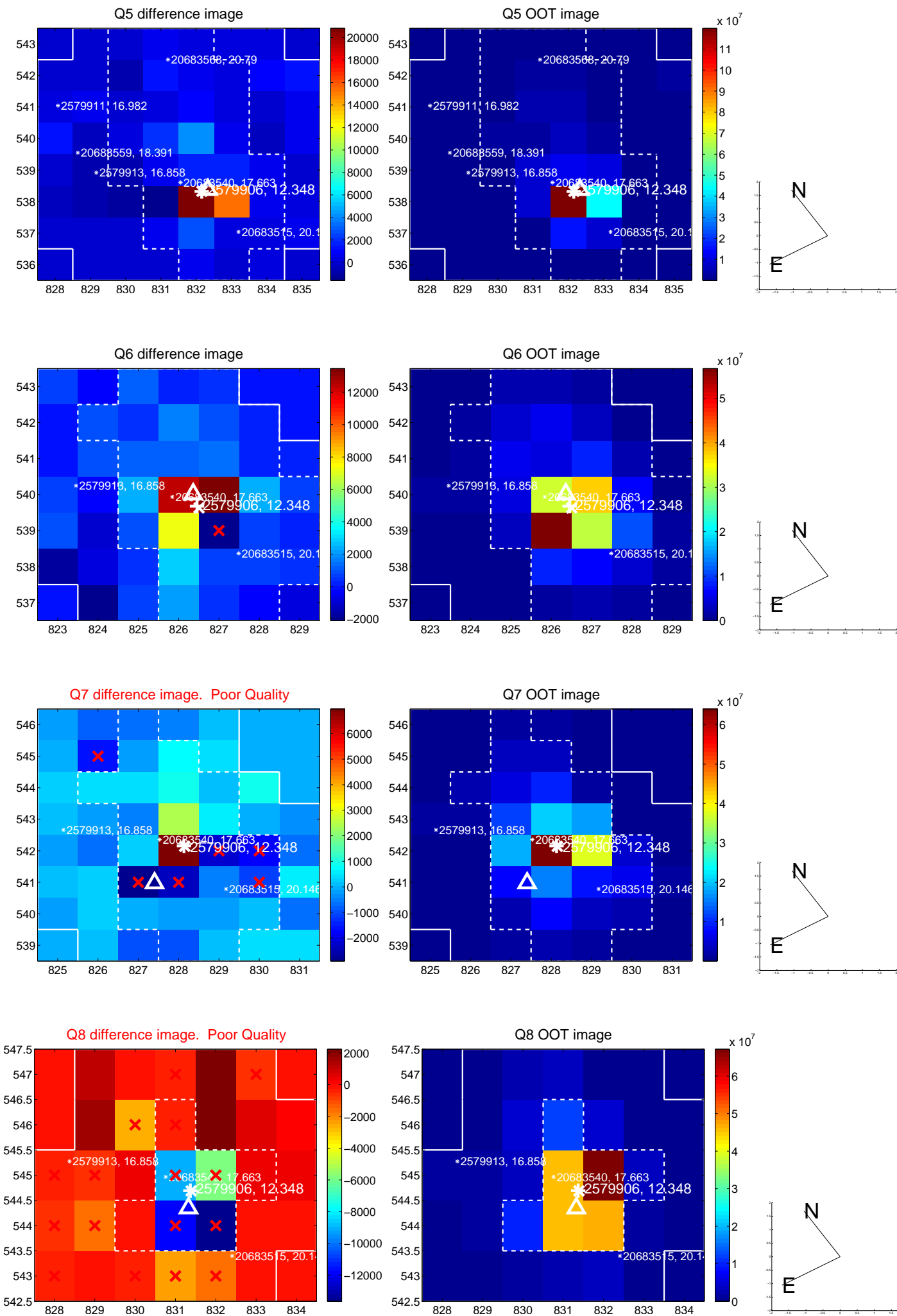


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

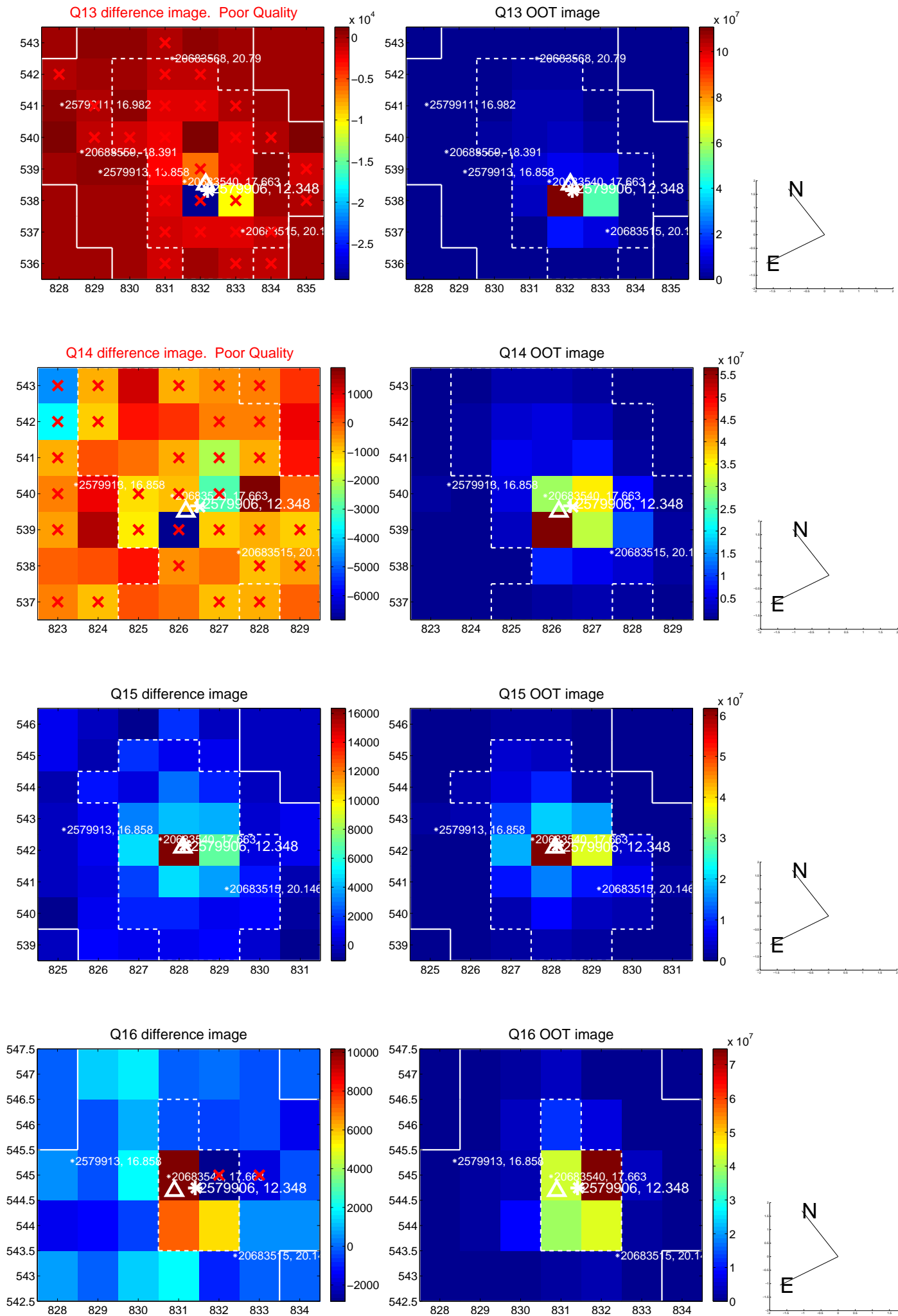
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



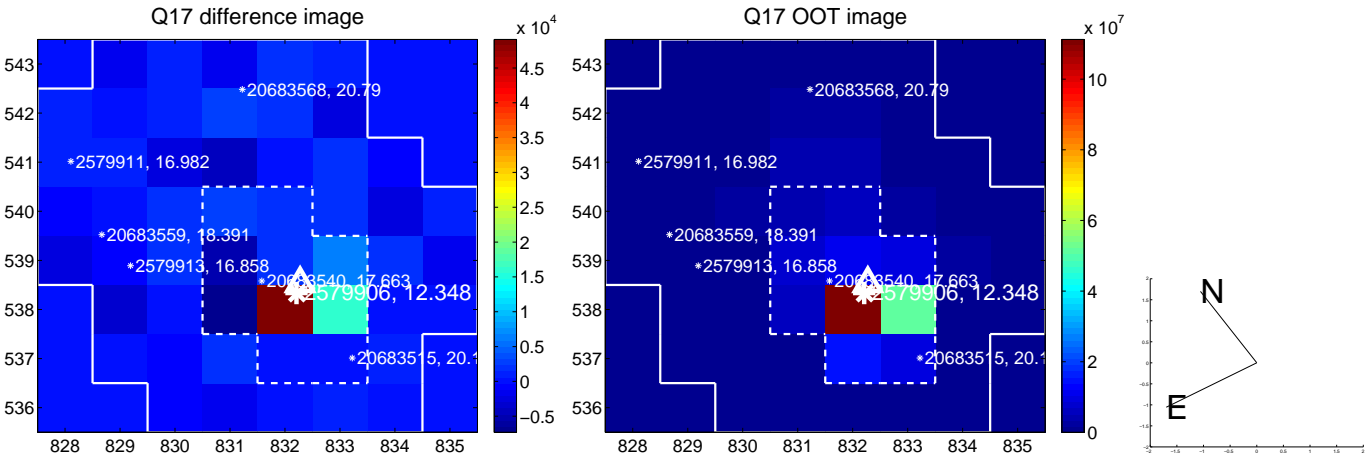
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



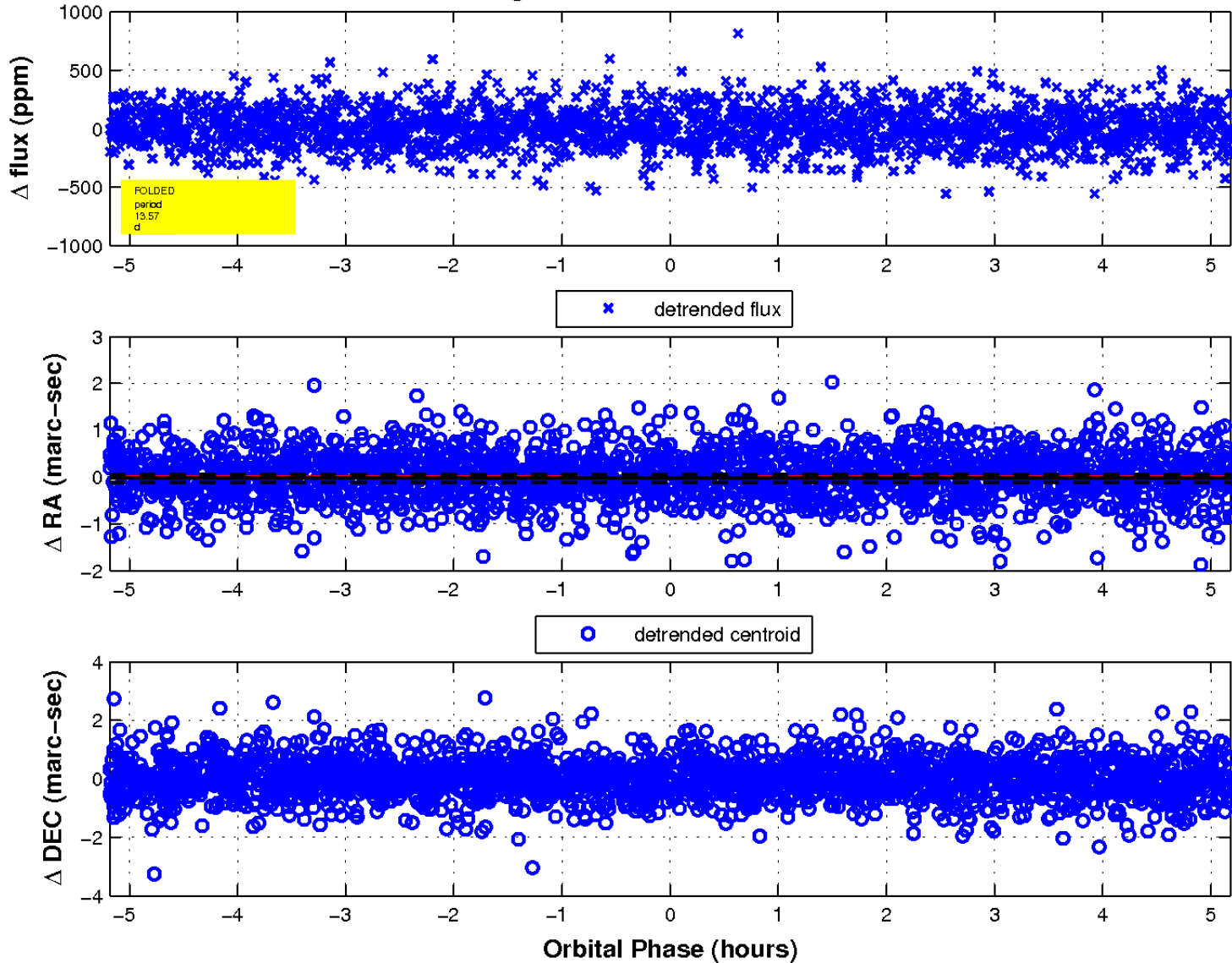
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



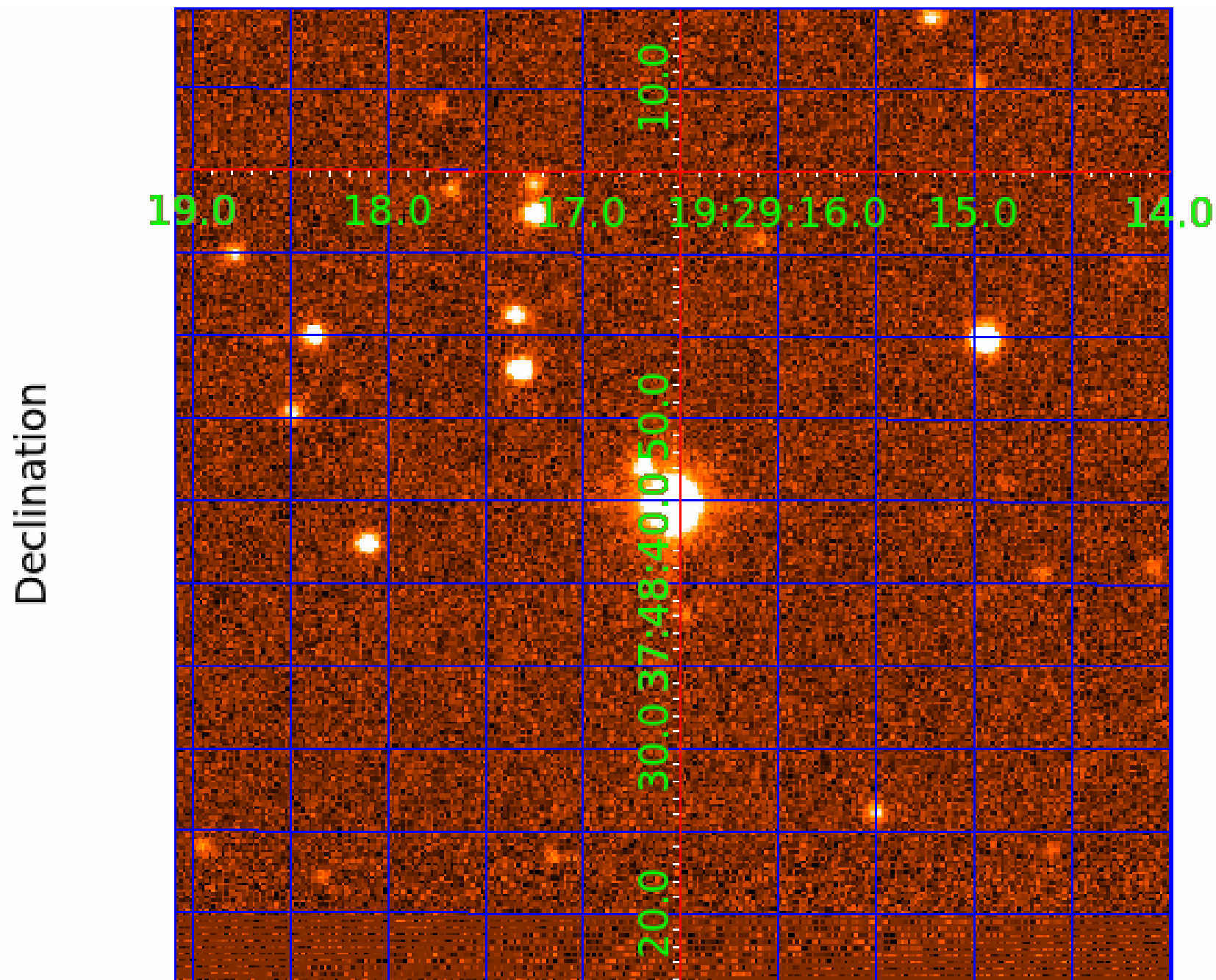
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 8 of 10



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

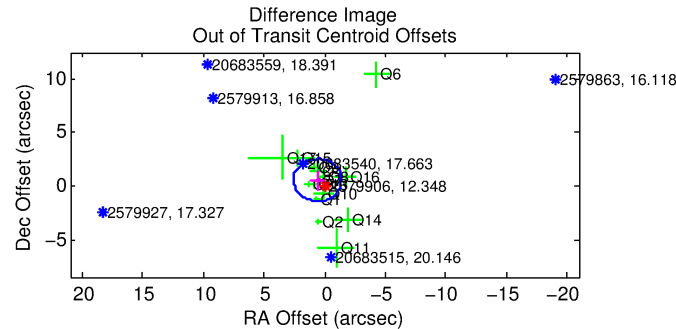
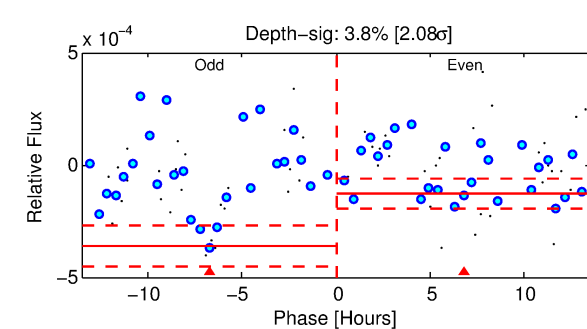
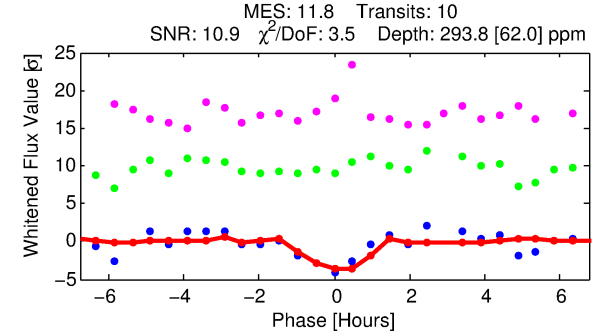
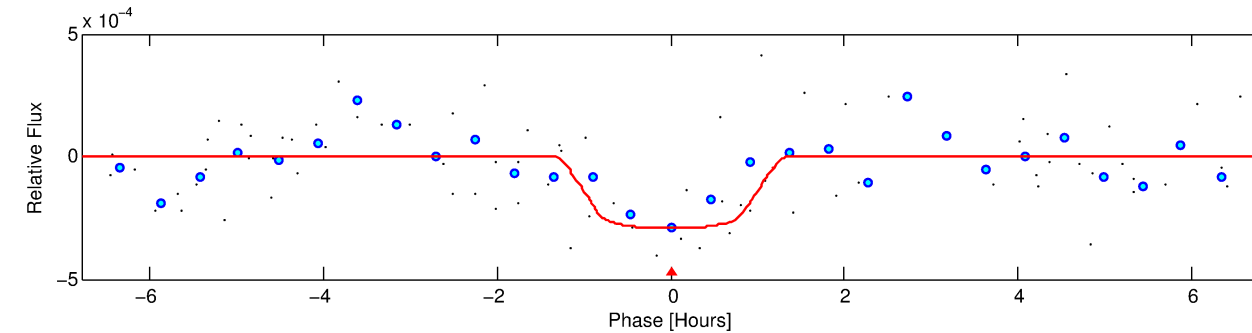
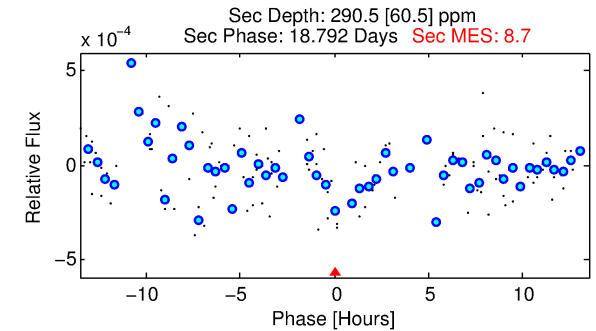
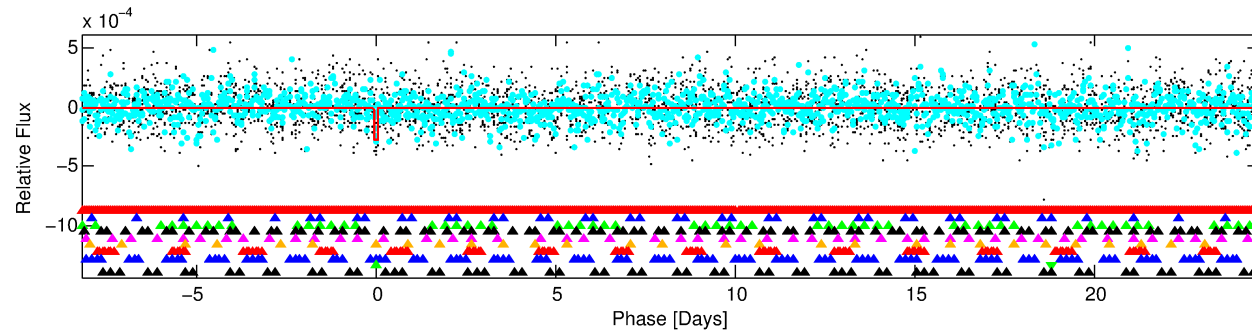
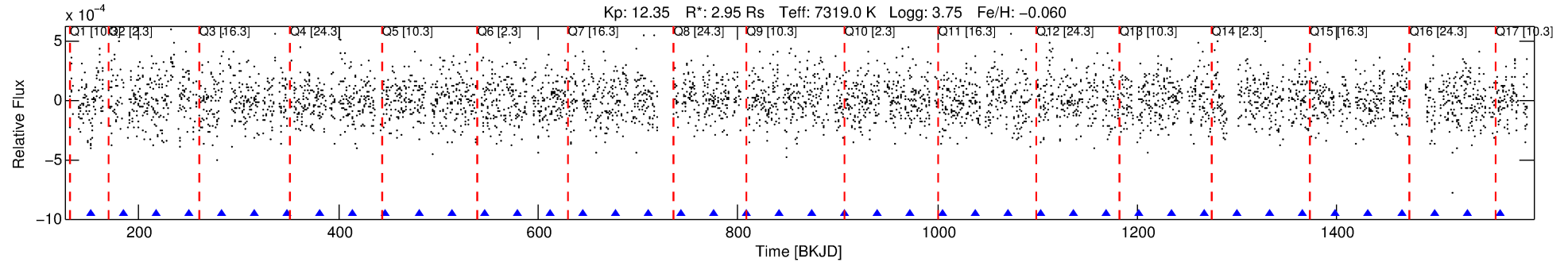
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-09

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 9 of 10 Period: 32.805 d



DV Fit Results:

Period = 32.80480 [0.00069] d
Epoch = 152.3422 [0.0187] BKJD
Rp/R* = 0.0180 [0.0118]
a/R* = 55.76 [223.98]
b = 0.88 [1.01]
Seff = 377.95 [273.69]
Teq = 1124 [204] K
Rp = 5.81 [4.58] Re
a = 0.2434 [0.1059] AU
Ag = 280.77 [420.96] [0.66sigma]
Teffp = 7116 [2372] K [2.52sigma]

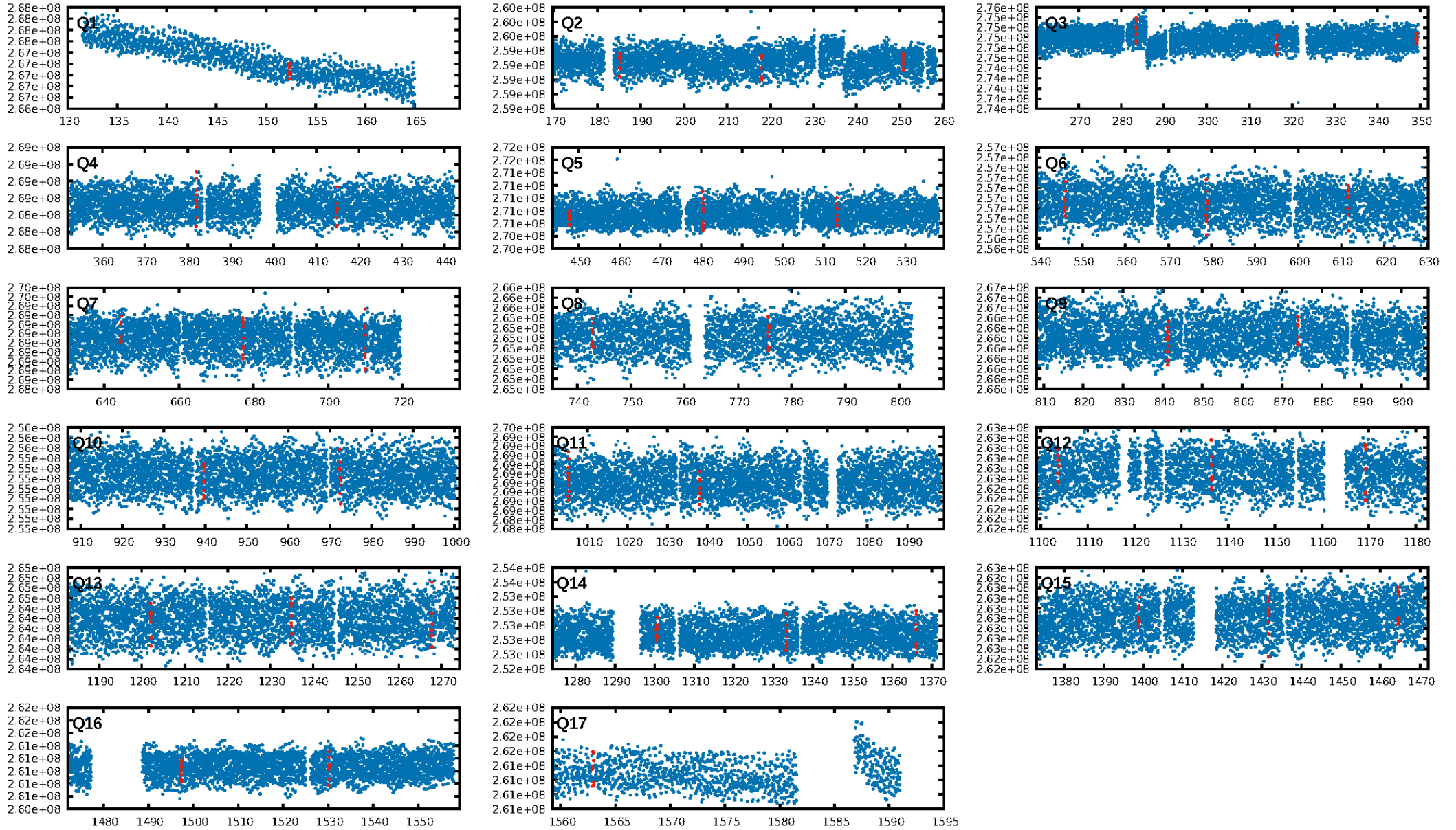
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.64sigma]
LongPeriod-sig: 100.0% [7.71sigma]
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 1.524
Centroid-sig: N/A
Centroid-so: 0.323 arcsec [0.79sigma]
OotOffset-rm: 0.808 arcsec [1.23sigma]
KicOffset-rm: 0.891 arcsec [1.56sigma]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 0.00 [0/17]

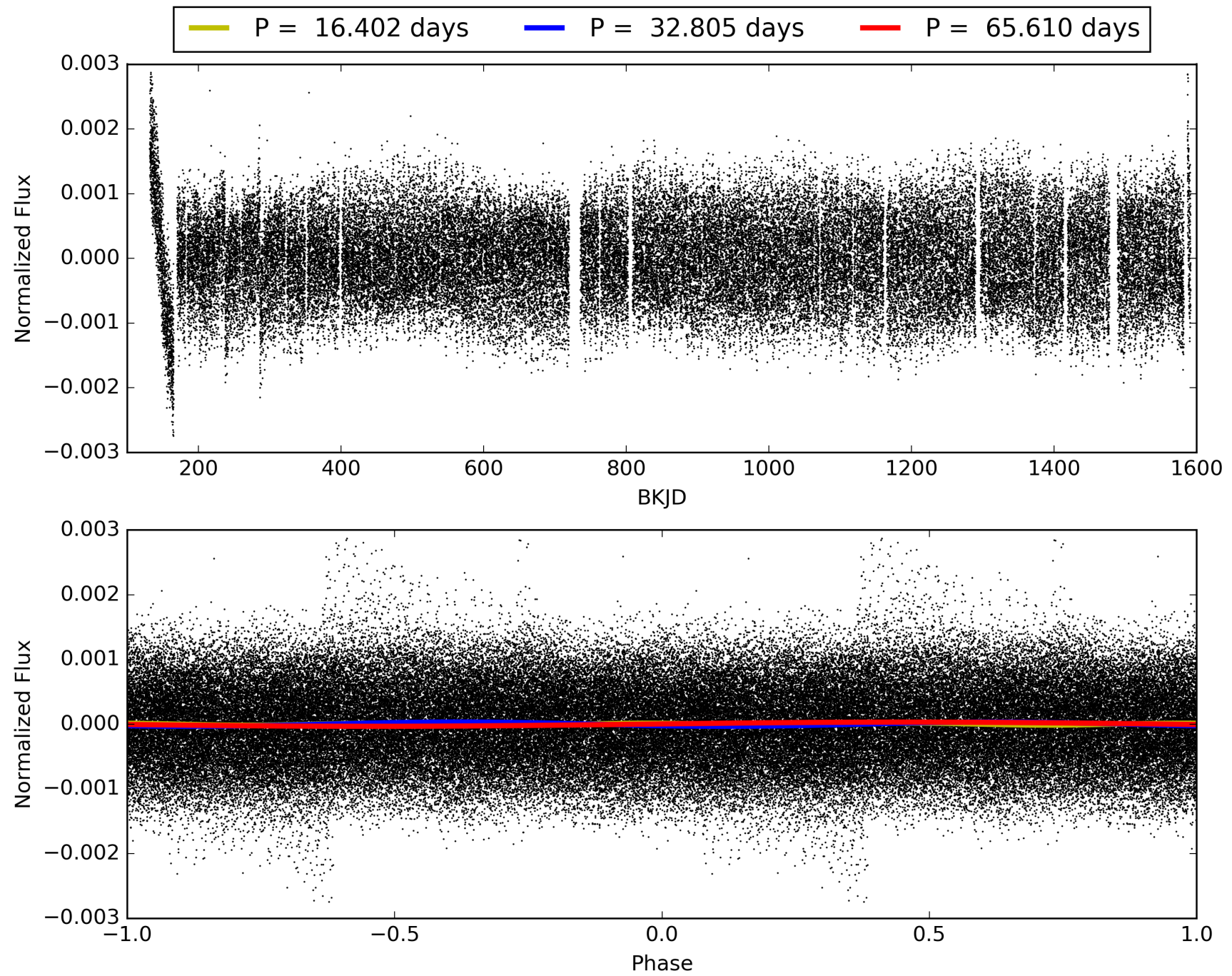
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:47 Z

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

TCE 002579906-09, PDC Light Curves

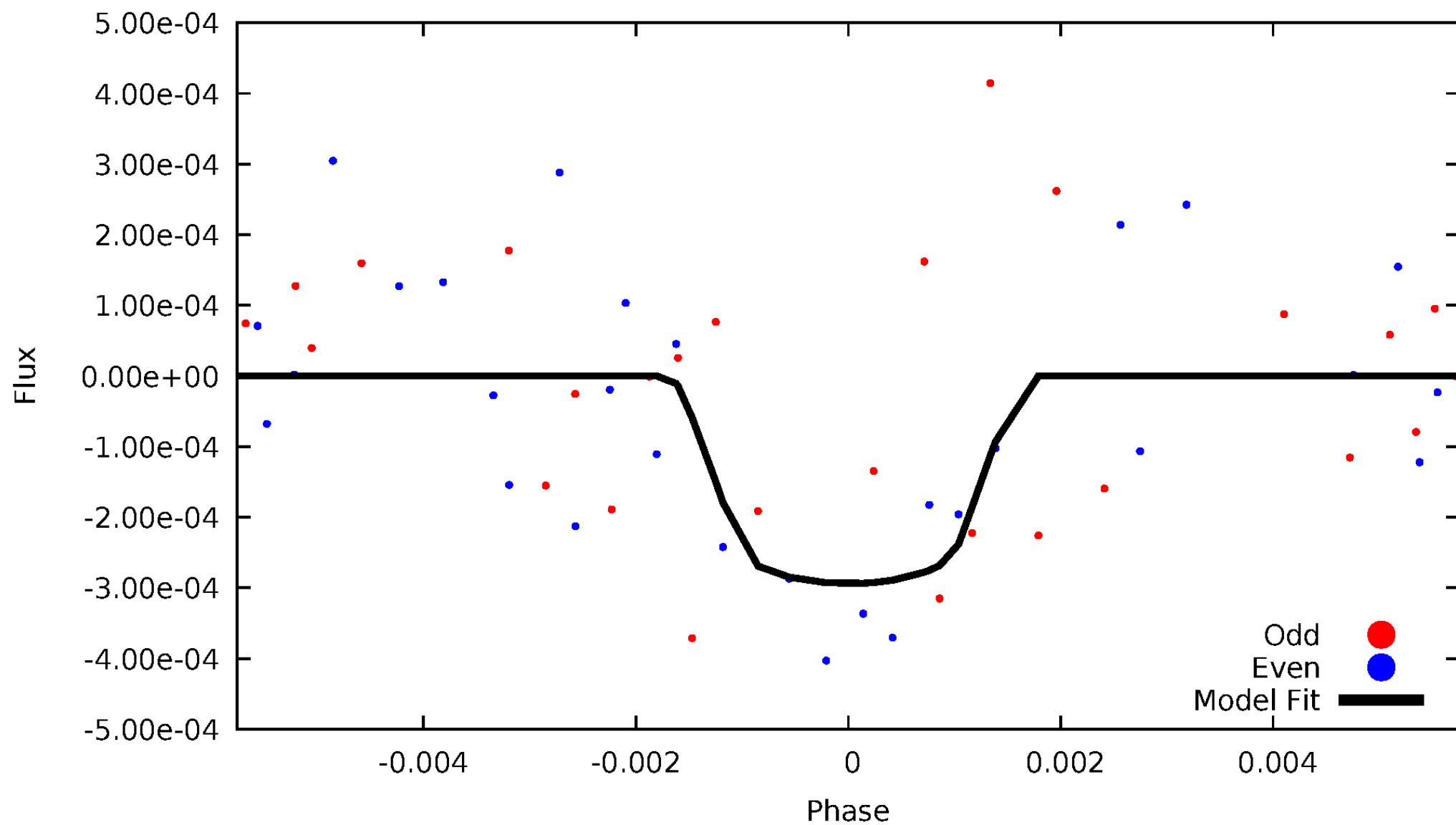


TCE 002579906-09



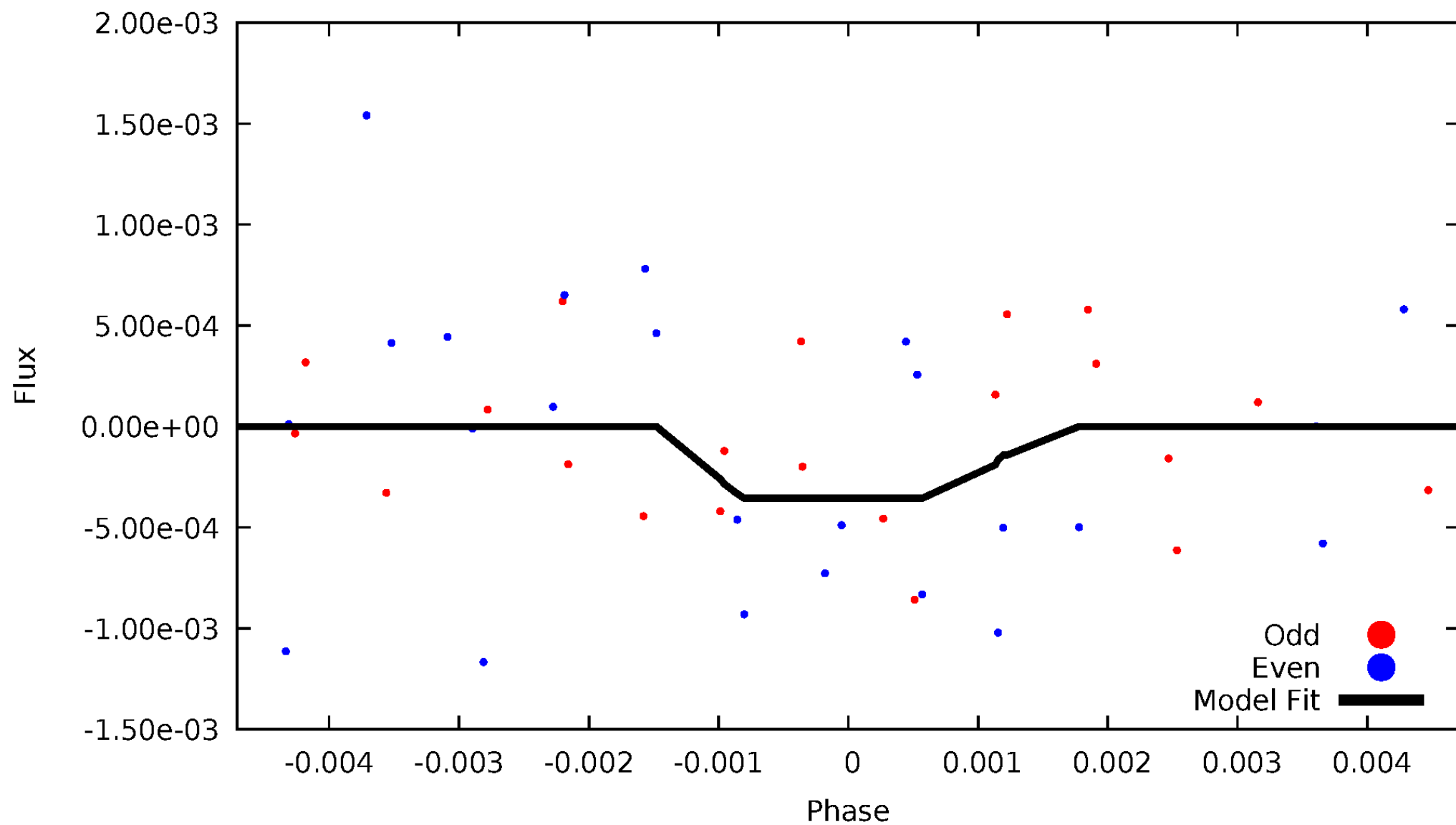
DV Odd/Even

TCE 002579906-09



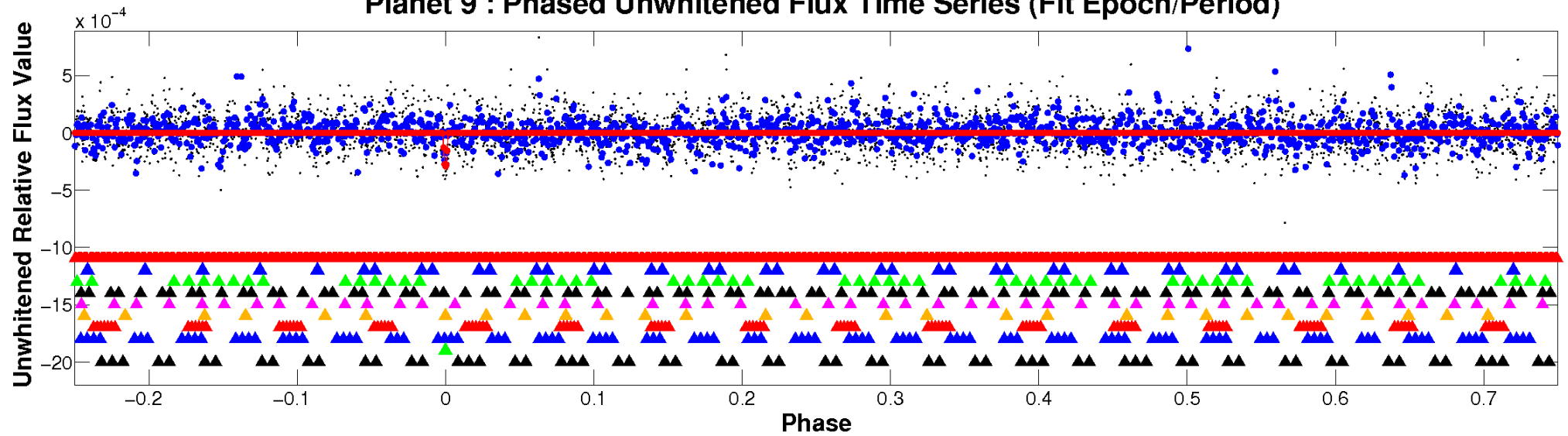
ALT Odd/Even

TCE 002579906-09

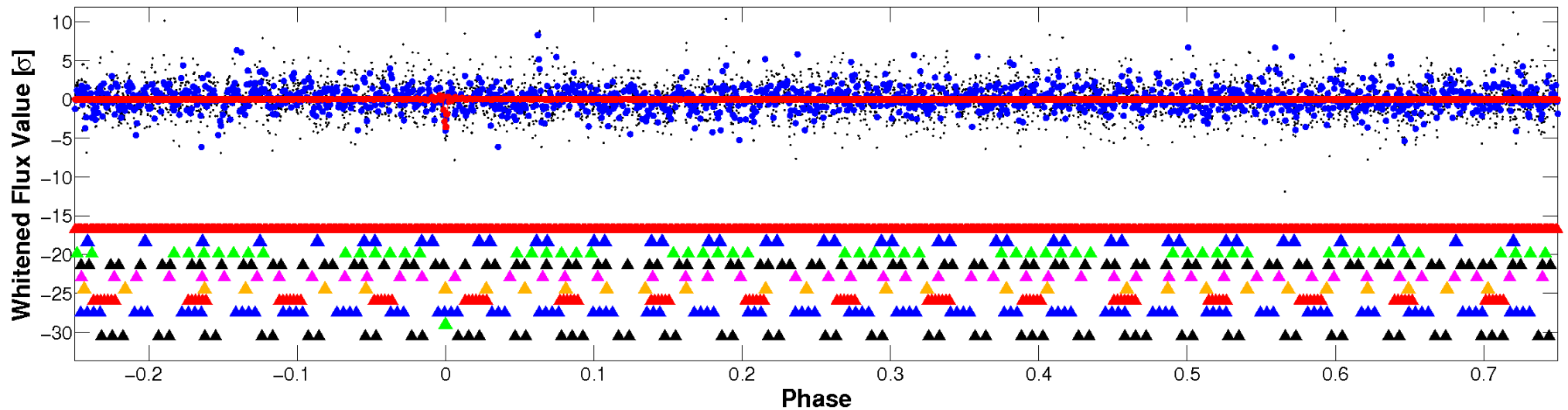


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

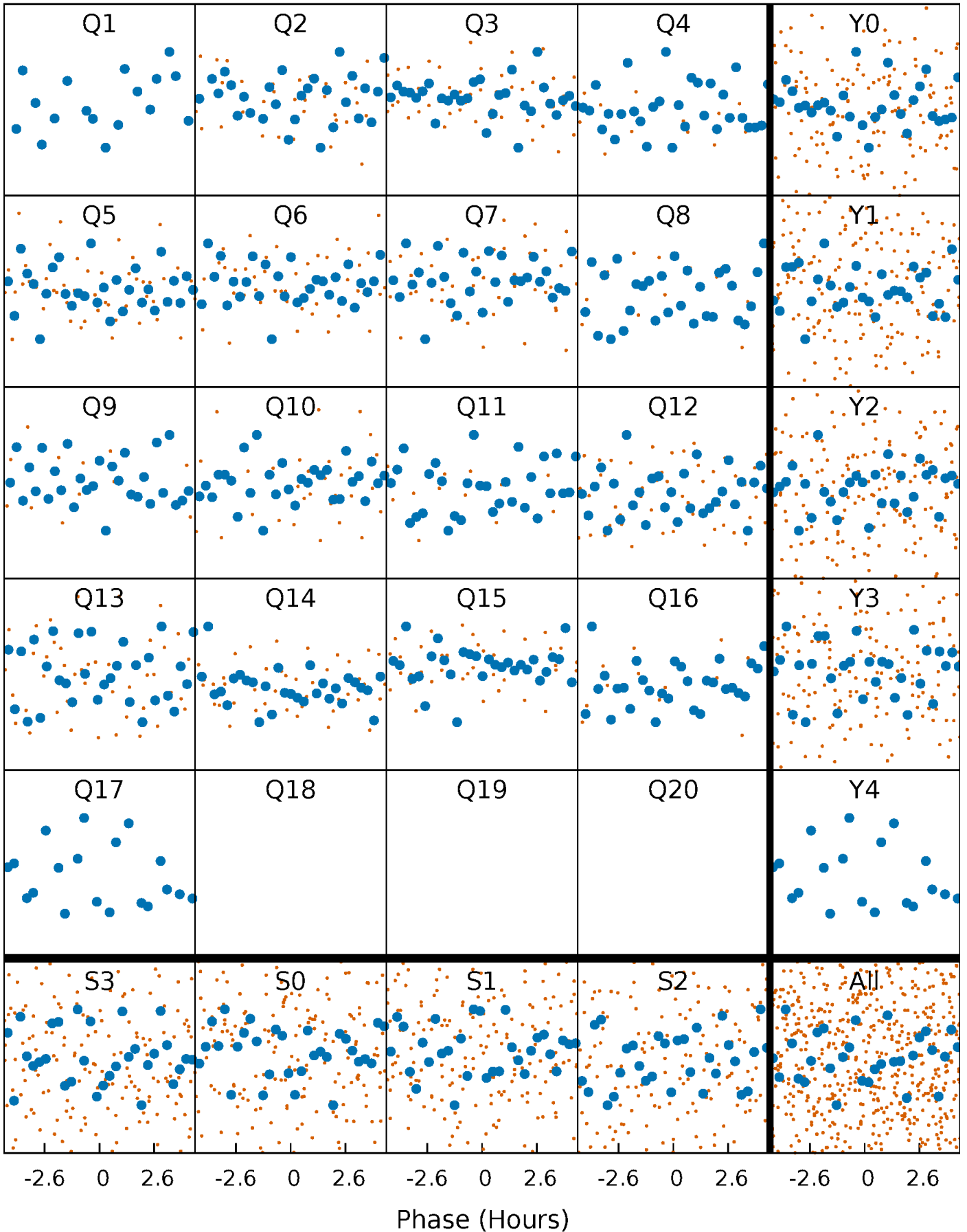


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



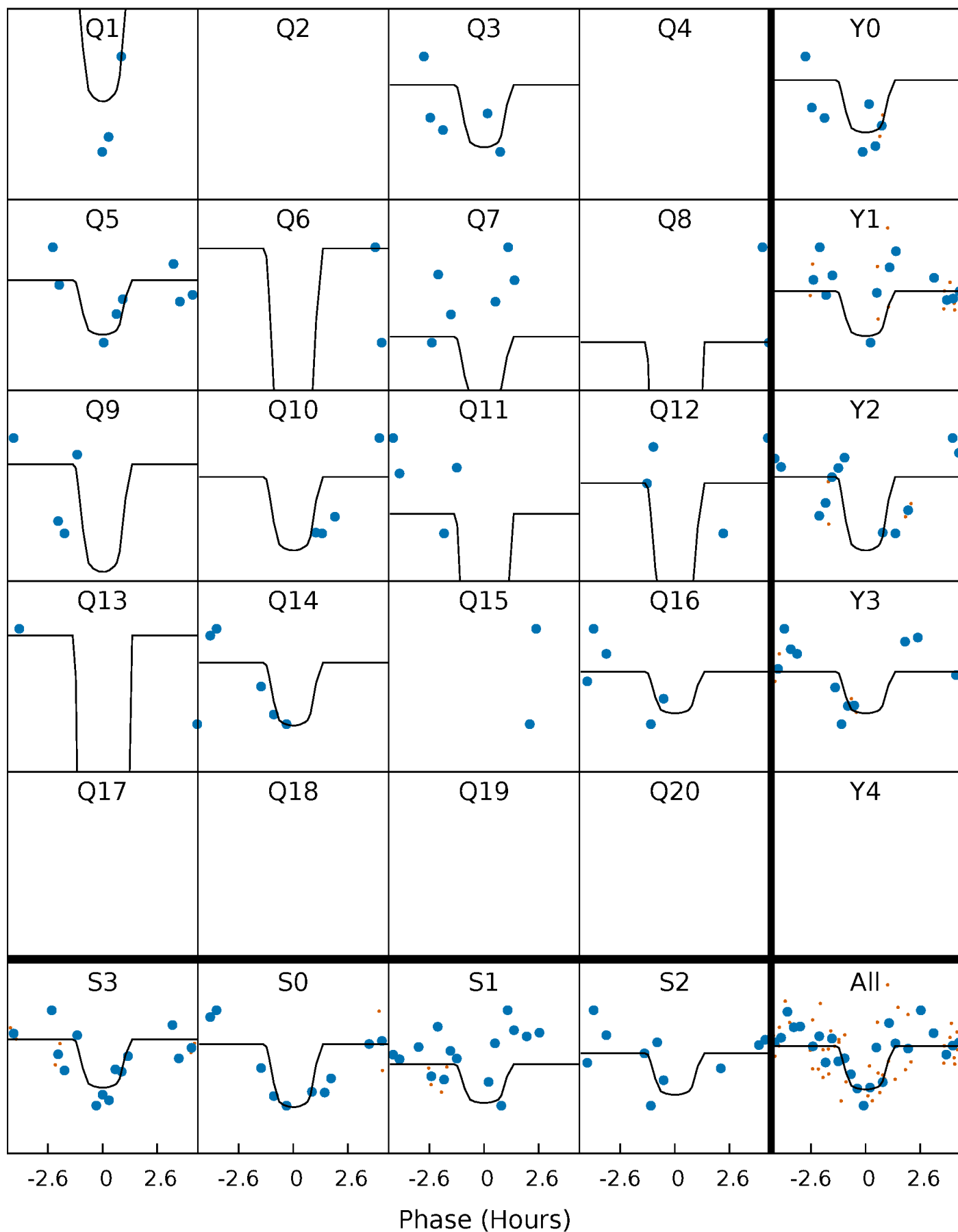
PDC Quarter-Phased Transit Curves

TCE 002579906-09 $P = 32.804796$ Days $T_0 = 152.342177$ (BKJD)



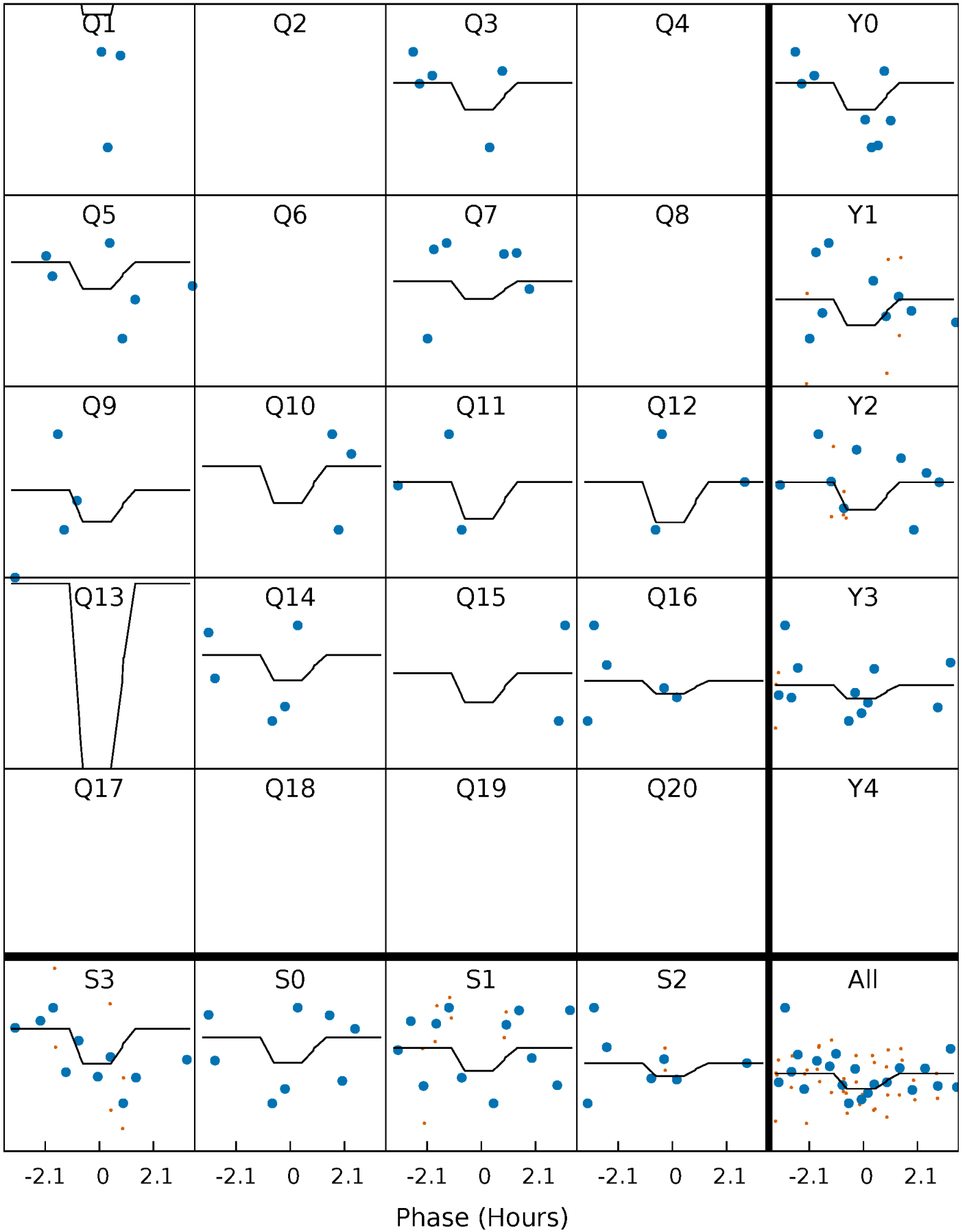
DV Quarter-Phased Transit Curves

TCE 002579906-09 P= 32.804796 Days $T_0=152.342177$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

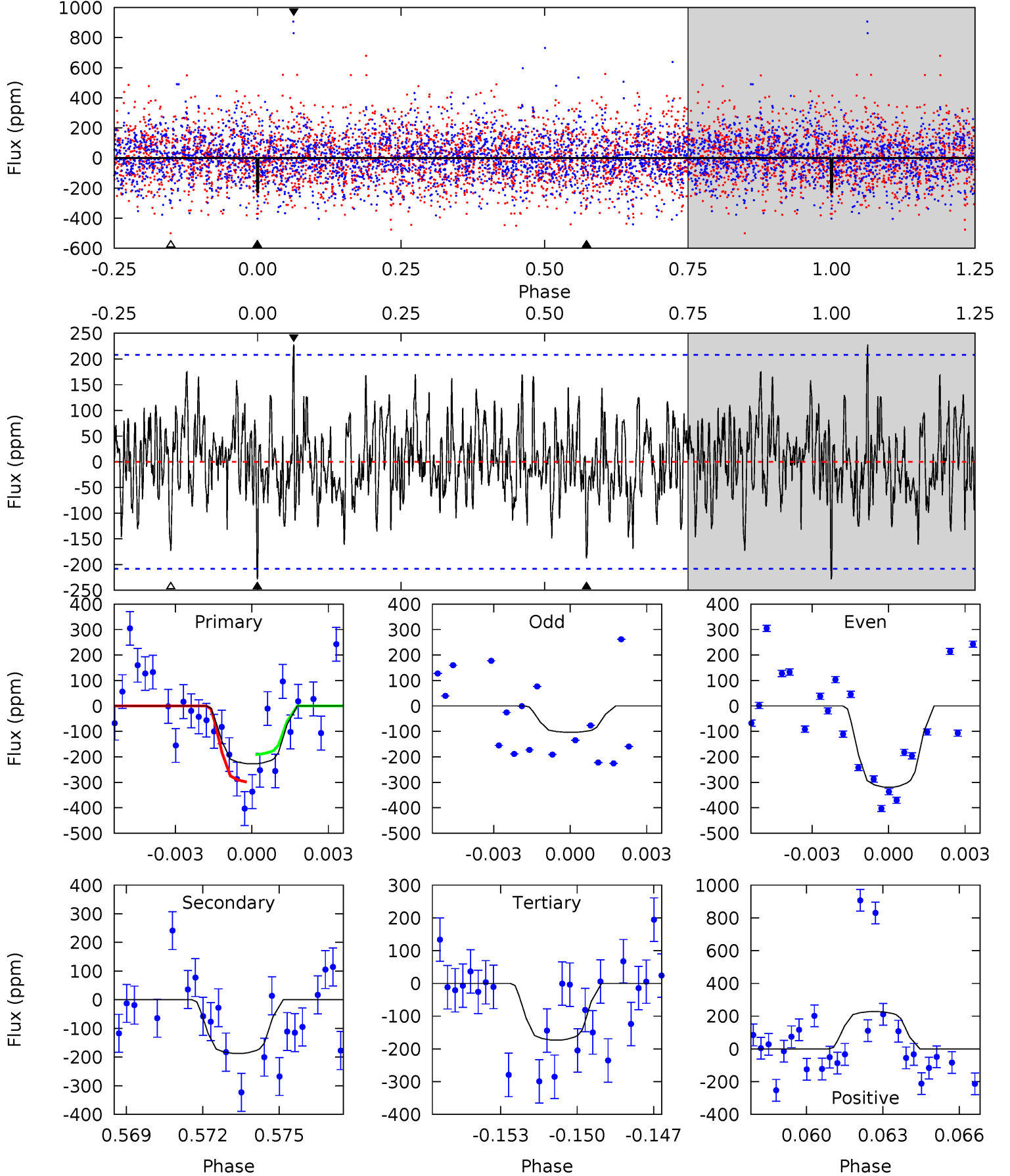
TCE 002579906-09 P= 32.804026 Days $T_0=152.337062$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-09, P = 32.804796 Days, E = 119.537381 Days

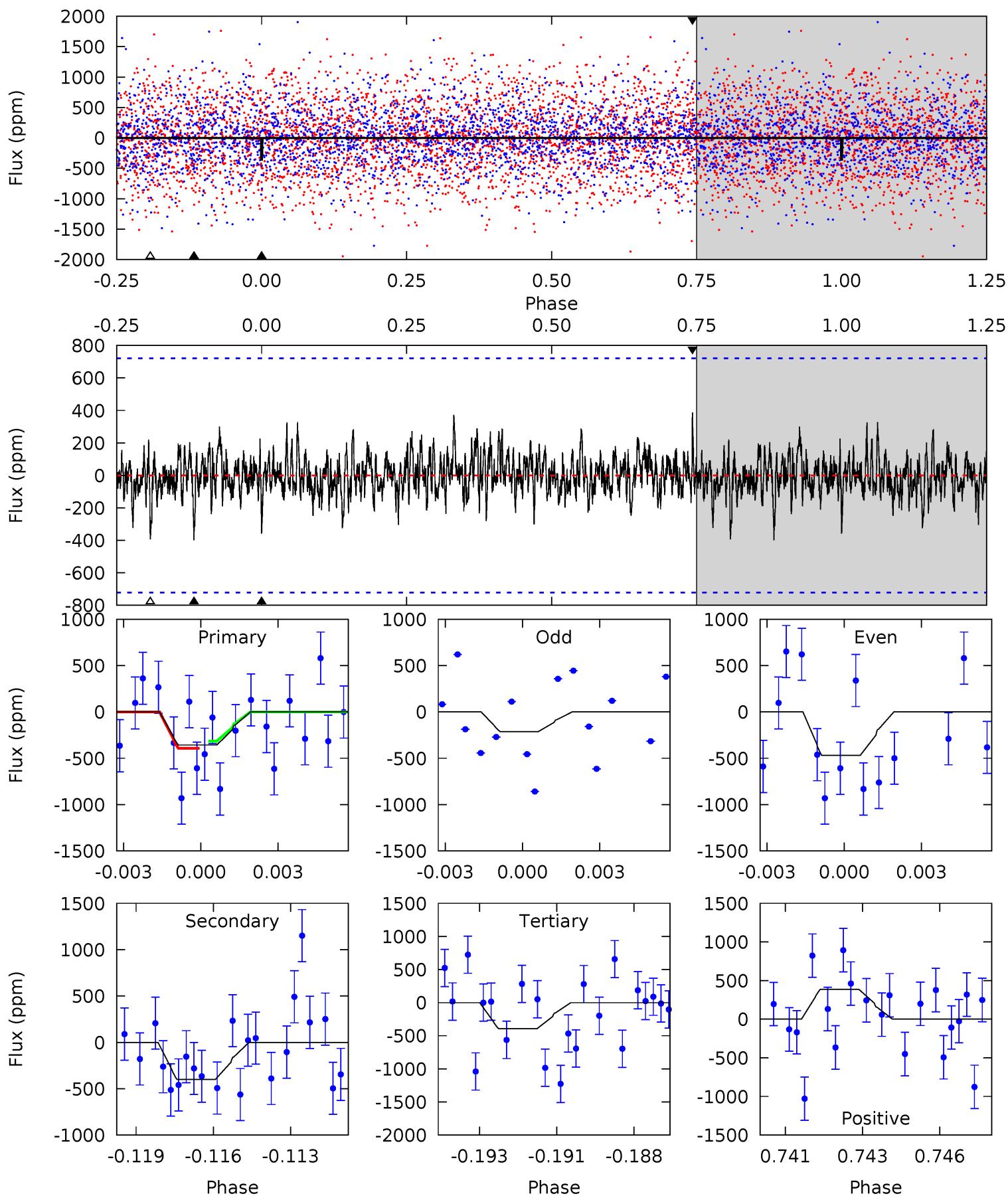
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.73	4.73	4.37	5.75	5.25	2.97	1.53	1.36	-0.02	0.36	-1.02	2.71	0.70	0.50	1.36



Alt Model-Shift Uniqueness Test

002579906-09, P = 32.804026 Days, E = 119.533036 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.61	2.92	2.87	2.83	5.27	2.99	0.74	-0.26	-0.22	0.05	0.09	0.96	0.97	0.49	0.27



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-09 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-187 ± 40	$5.61^{+3.75}_{-3.08}$	1535^{+103}_{-168}	6142^{+3238}_{-1203}	192^{+695}_{-122}
Alt.	-399 ± 137	$5.74^{+3.66}_{-3.04}$	1533^{+99}_{-172}	7355^{+5064}_{-1789}	400^{+1333}_{-270}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

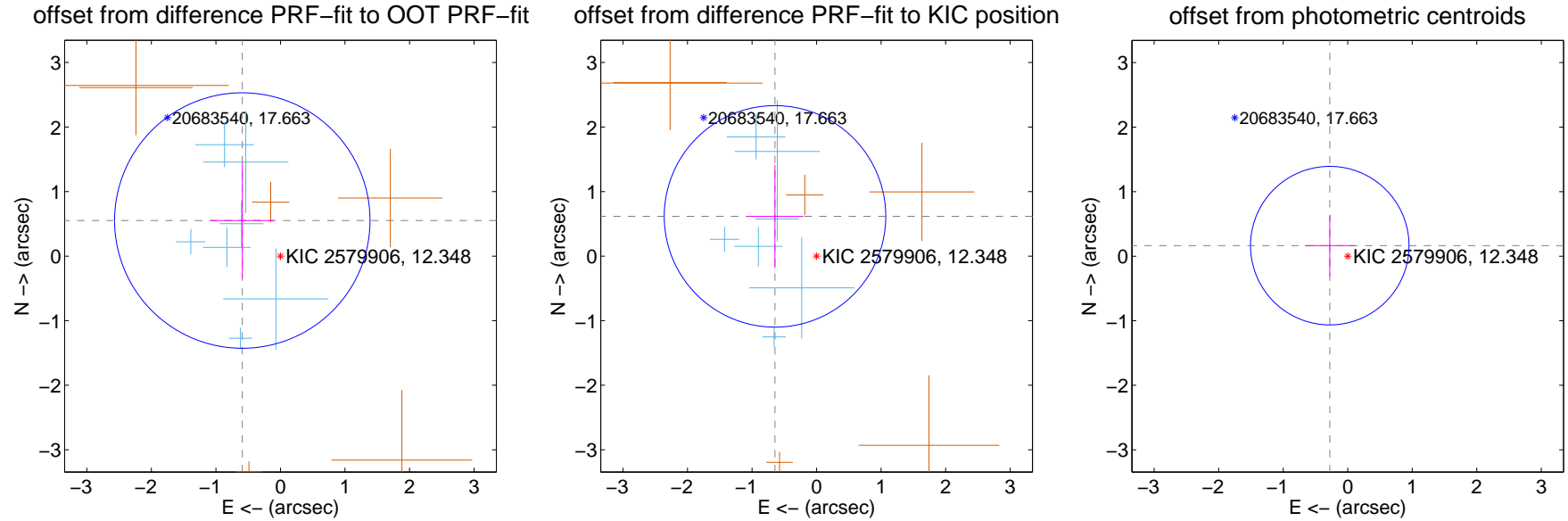
DV Centroid Data

Supplemental centroid analysis for 002579906-09. Kepler magnitude: 12.35. Transit SNR 10.95

There are 7 quarters with good PRF difference image offsets

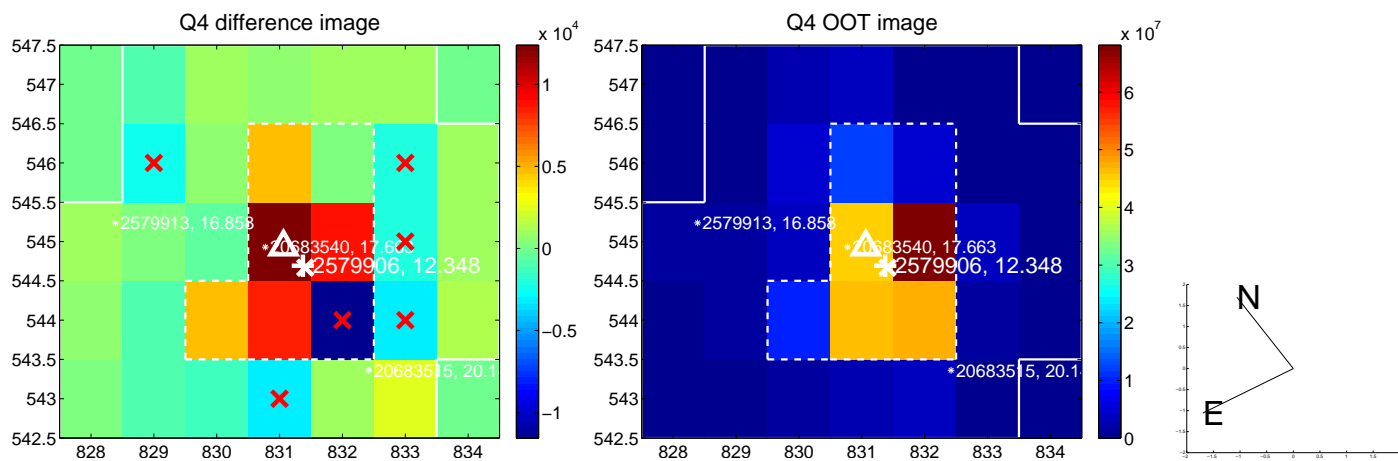
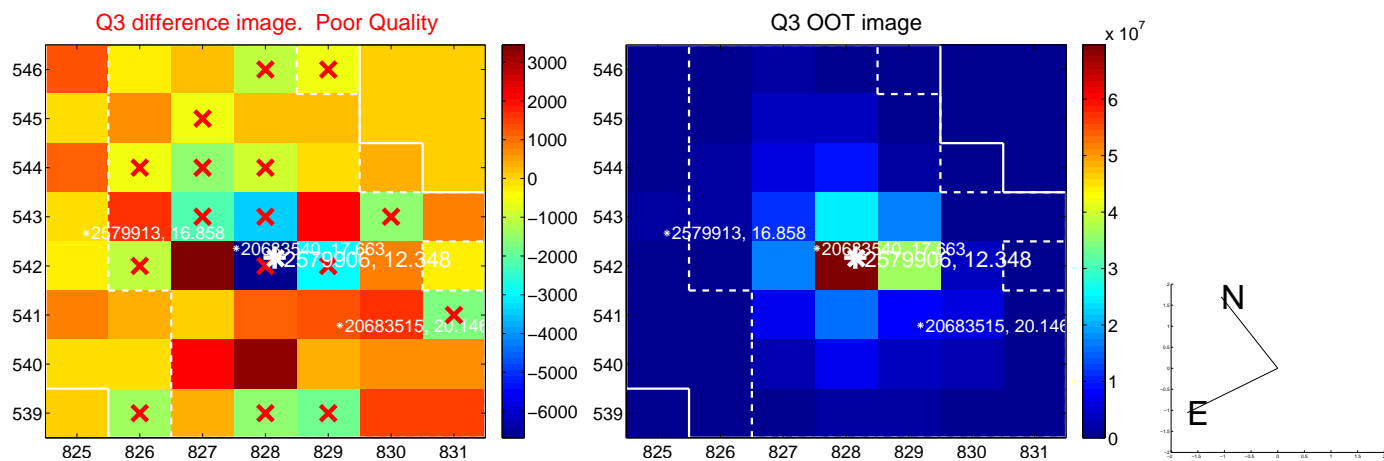
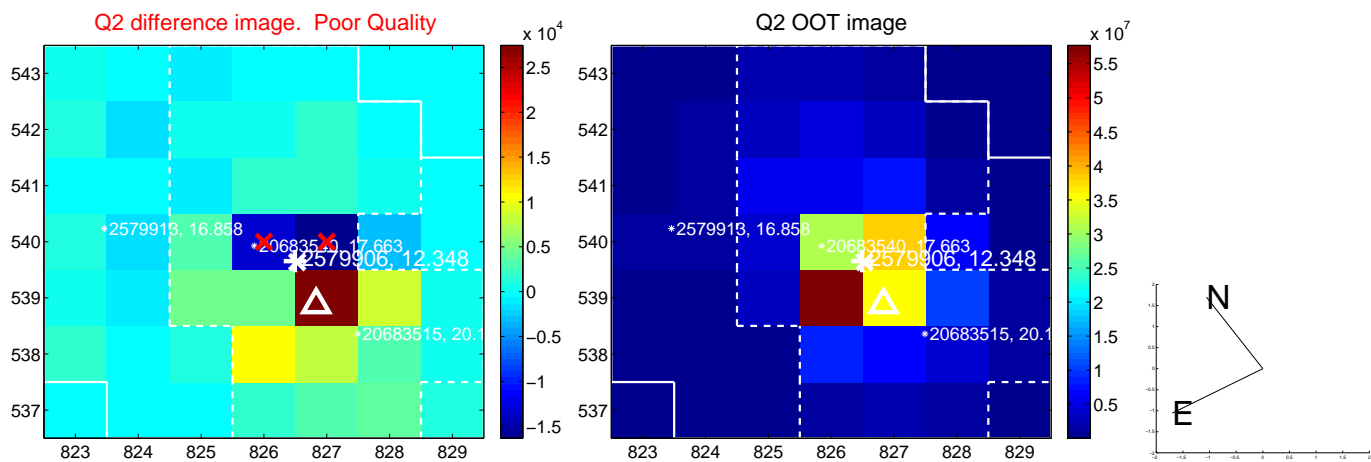
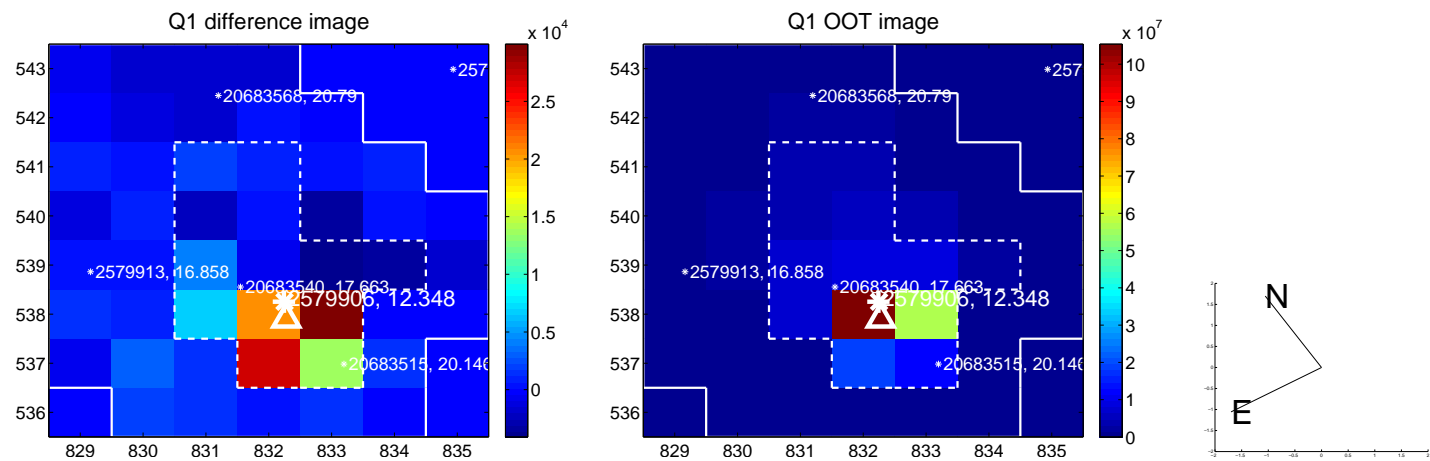
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.808 ± 0.660	1.23	0.591 ± 0.492	0.551 ± 0.896
PRF-fit source offset from KIC position	0.891 ± 0.572	1.56	0.644 ± 0.441	0.616 ± 0.799
photometric centroid source offset	0.32 ± 0.41	0.79	0.28 ± 0.39	0.16 ± 0.47

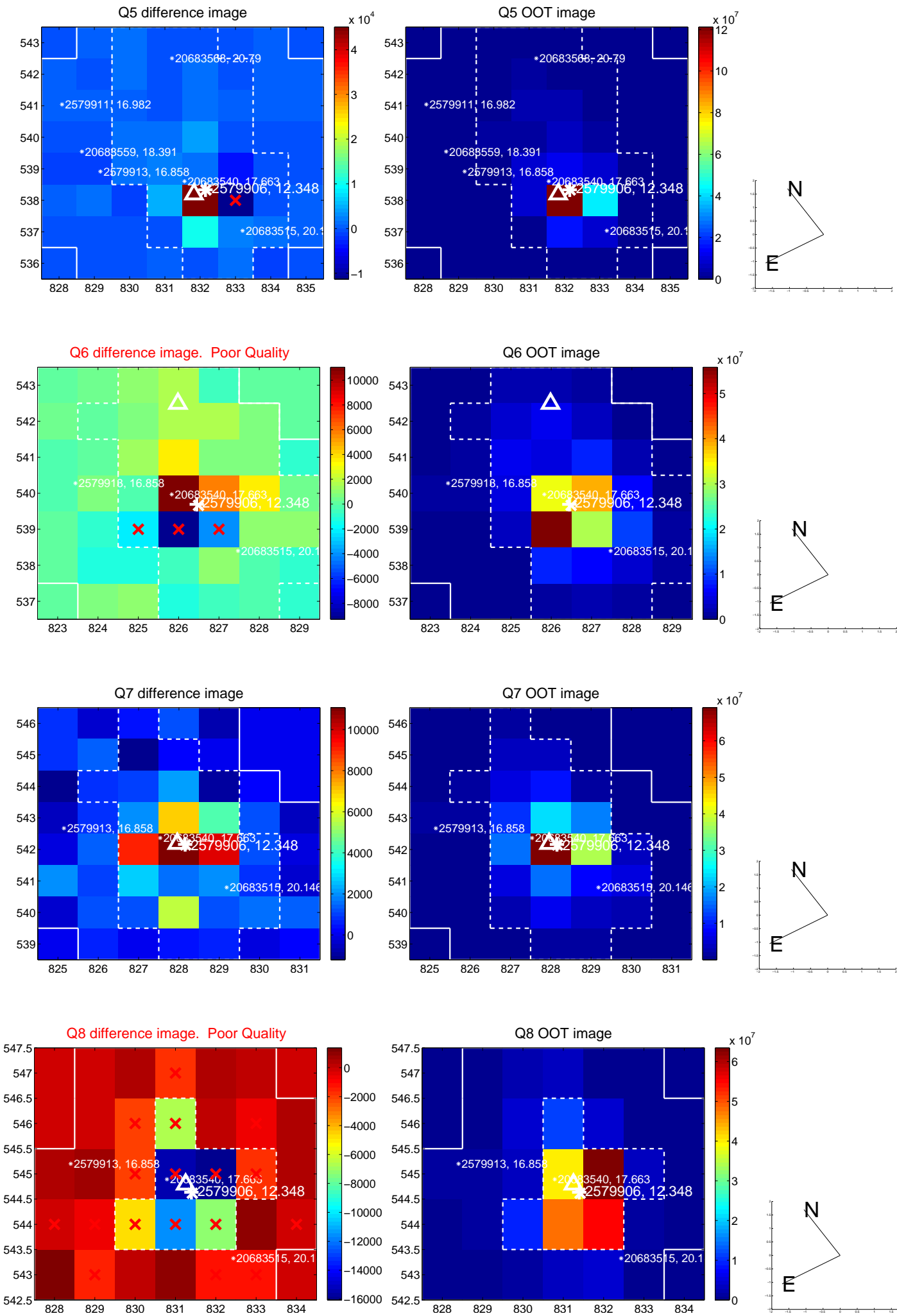


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

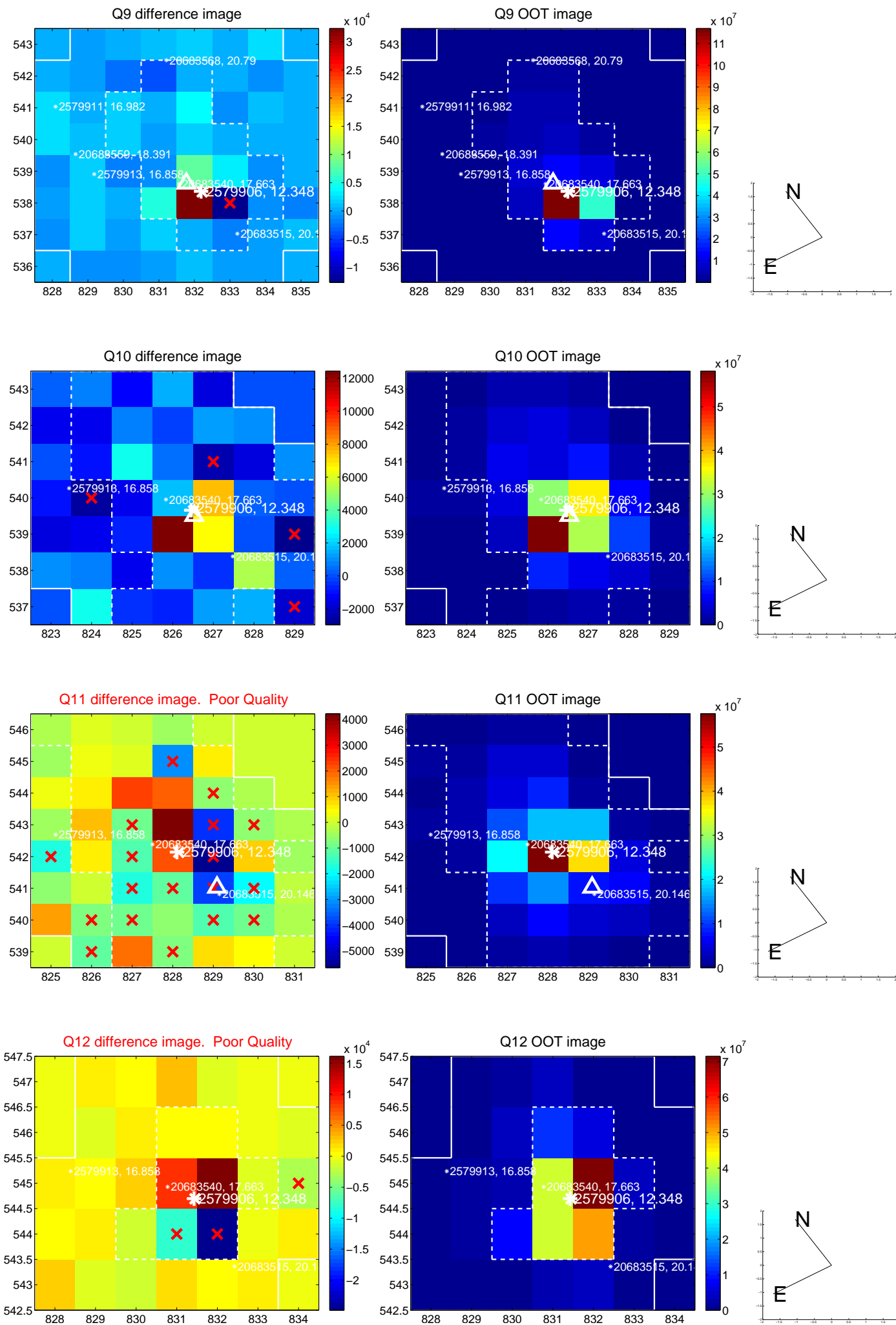
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



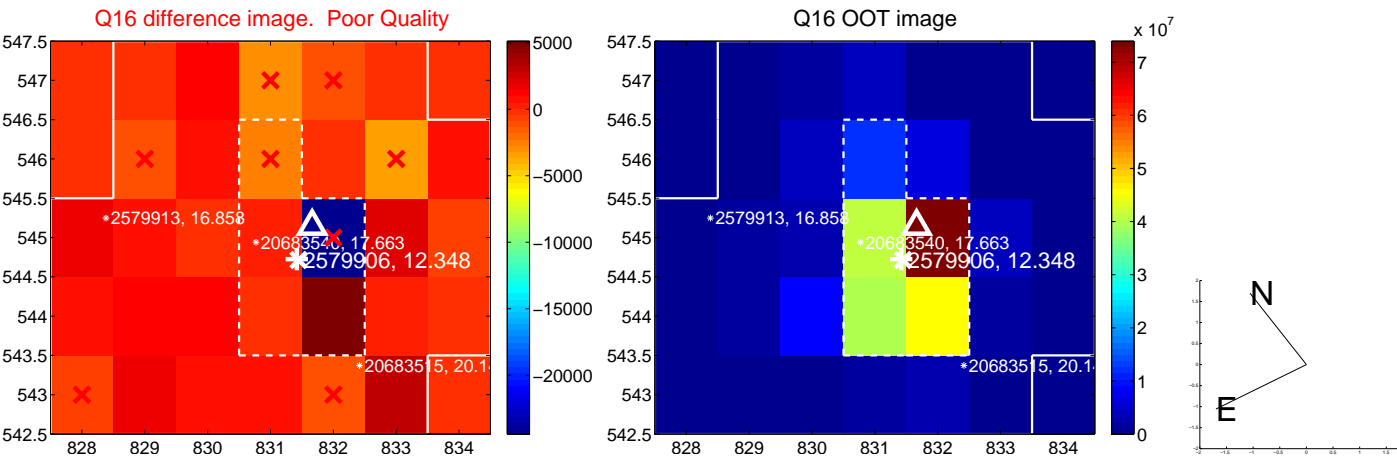
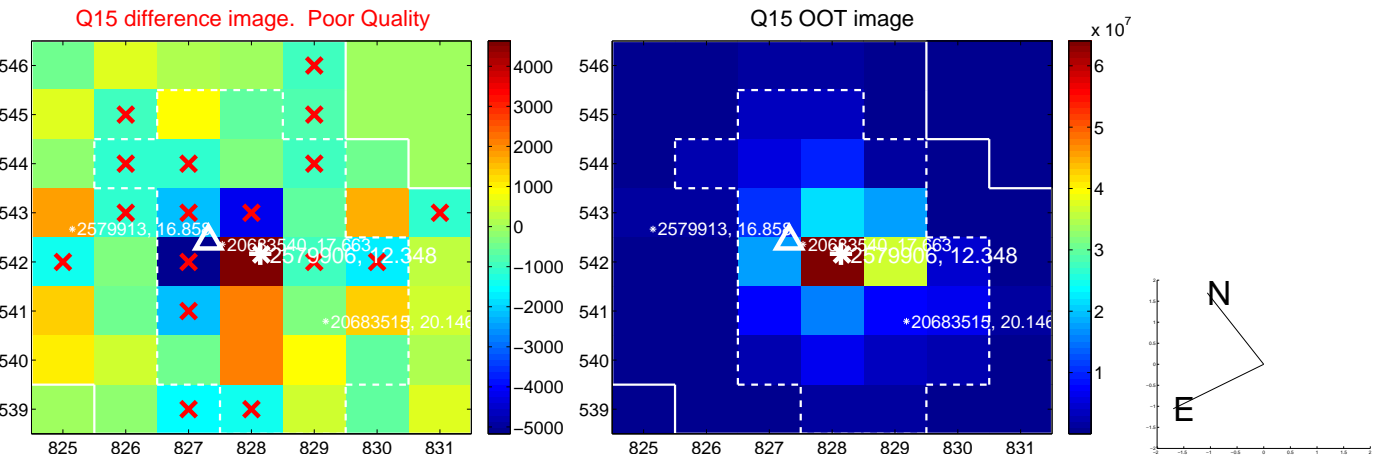
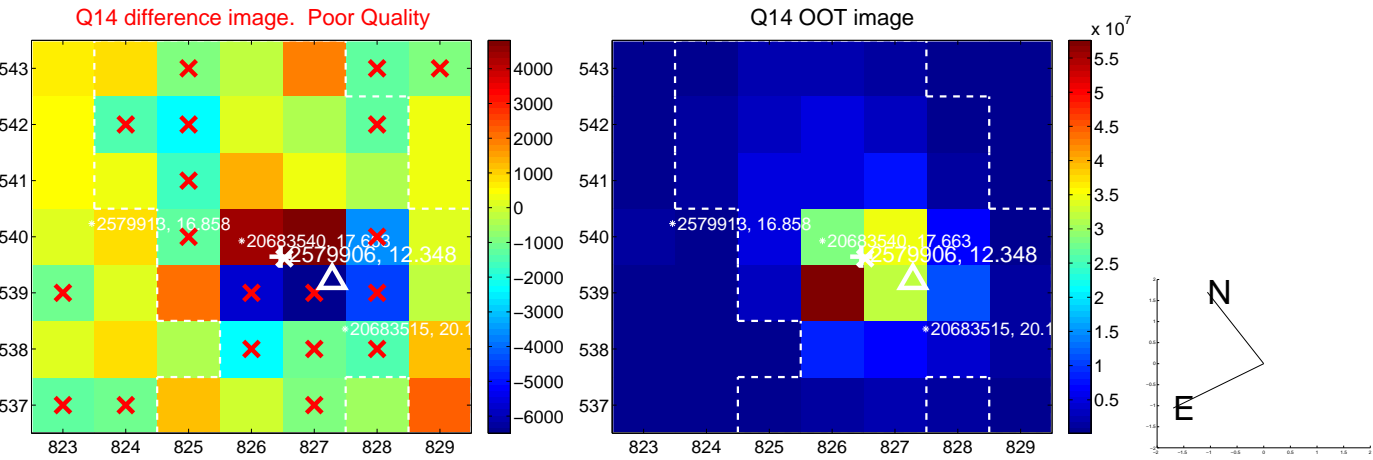
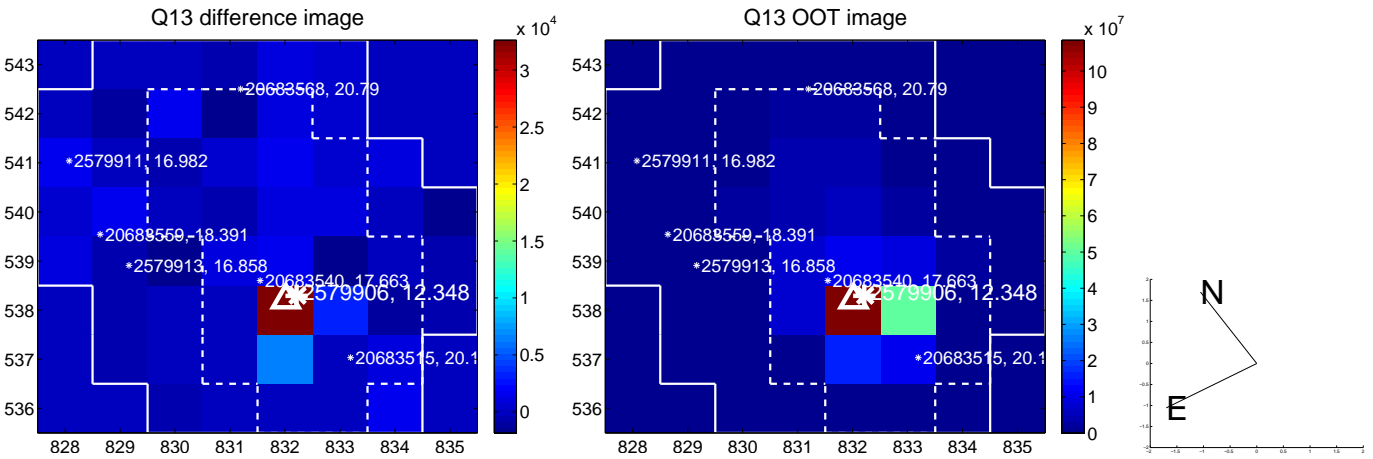
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



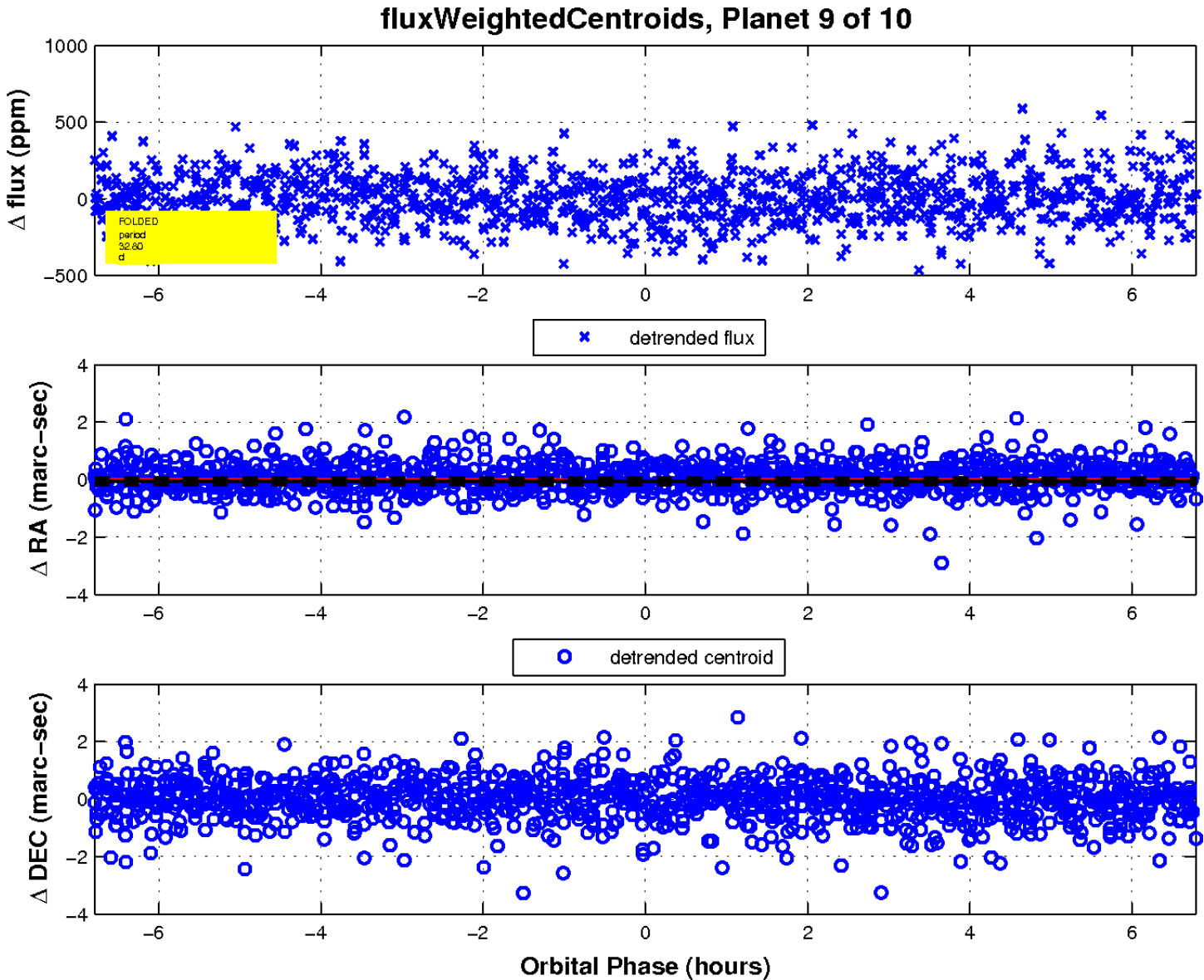
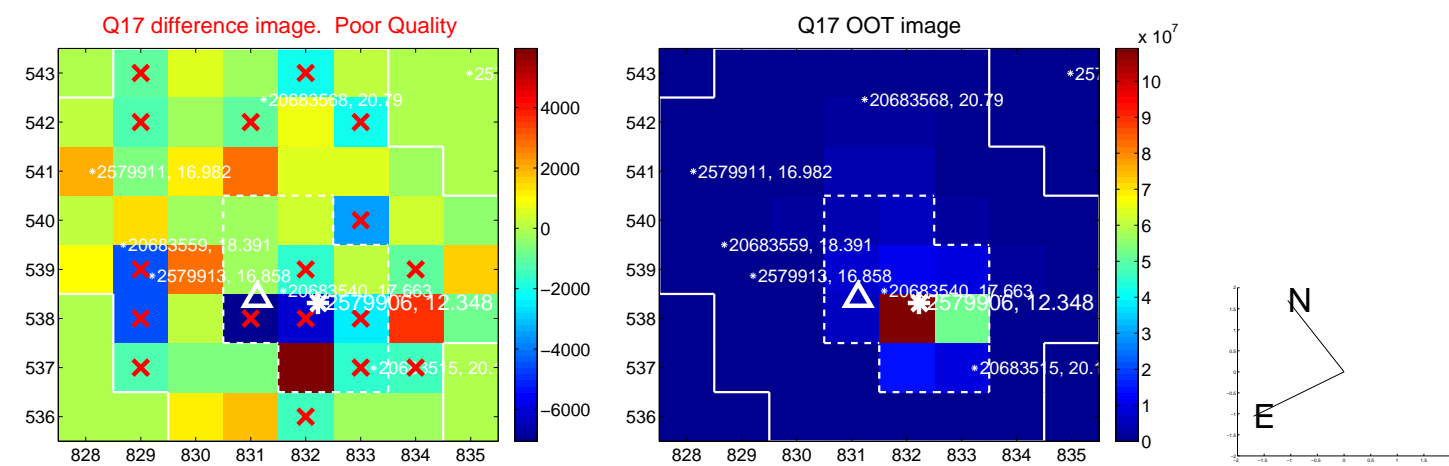
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



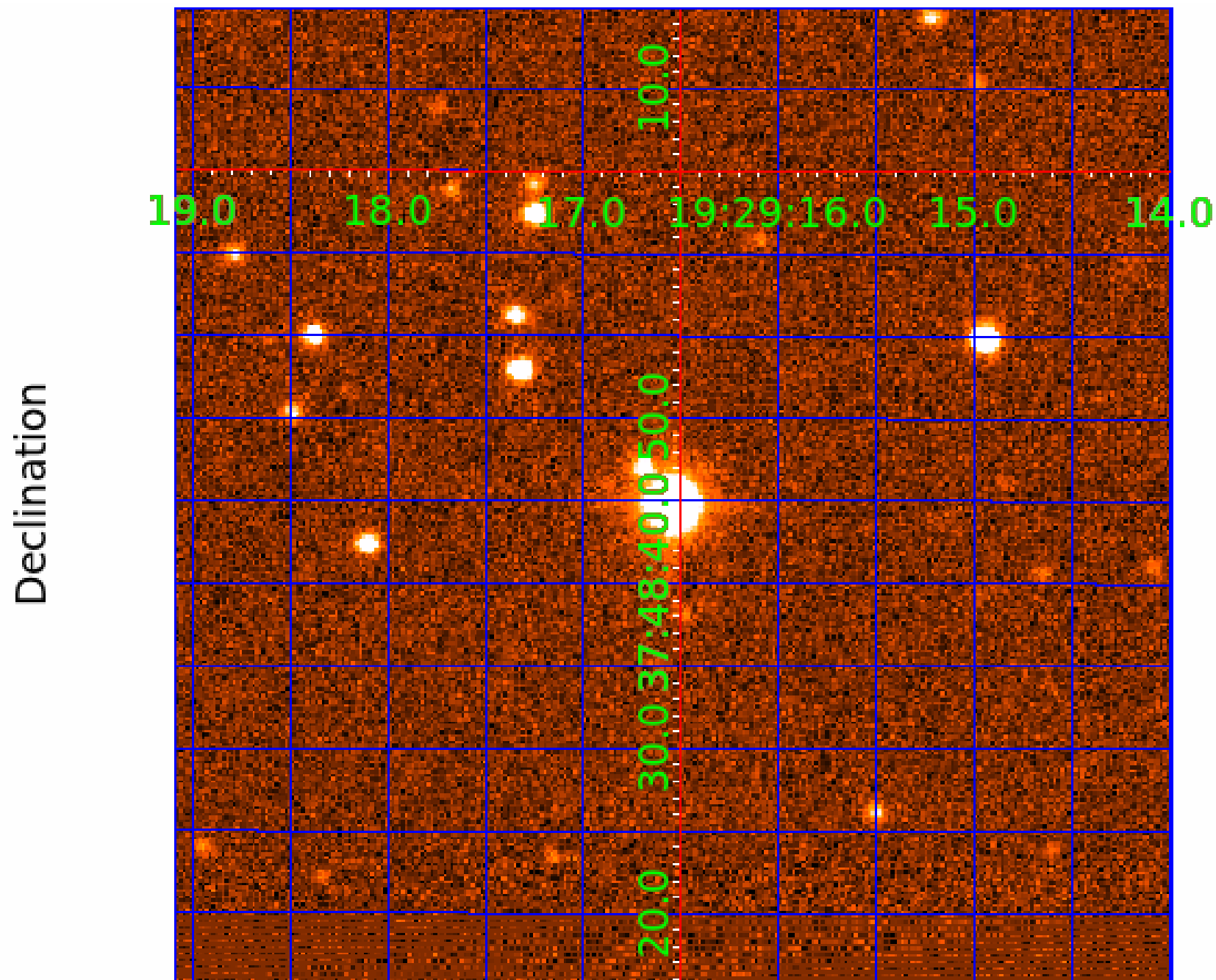
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 002579906

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})
002579906-01	OBS	No	0.640759	131.526180	9.0	4.538	9.4	4.5	2.95	7319	0.90	71849.04
002579906-02	OBS	No	34.075617	150.544541	211.4	3.244	15.9	8.7	2.95	7319	4.85	359.27
002579906-03	OBS	No	25.551405	146.338215	297.7	1.668	13.4	9.8	2.95	7319	5.23	527.38
002579906-04	OBS	No	15.504544	143.975465	195.1	4.500	9.4	-1.0	2.95	7319	4.18	1026.60
002579906-05	OBS	No	29.645928	150.118154	0.7	2.672	11.2	0.0	2.95	7319	0.25	432.57
002579906-07	OBS	No	14.347177	138.905151	259.3	1.631	12.8	14.8	2.95	7319	5.59	1138.48
002579906-08	OBS	No	13.569463	134.562977	210.5	1.728	13.0	10.6	2.95	7319	4.35	1226.30
002579906-09	OBS	No	32.804796	152.342177	293.8	2.265	11.8	10.9	2.95	7319	5.81	377.95
002579906-10	OBS	No	22.632171	152.620586	107.6	3.573	11.6	6.7	2.95	7319	3.19	619.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002579906-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
002579906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
002579906-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
002579906-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
002579906-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
002579906-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

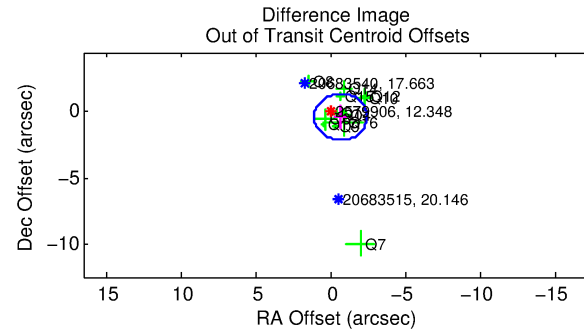
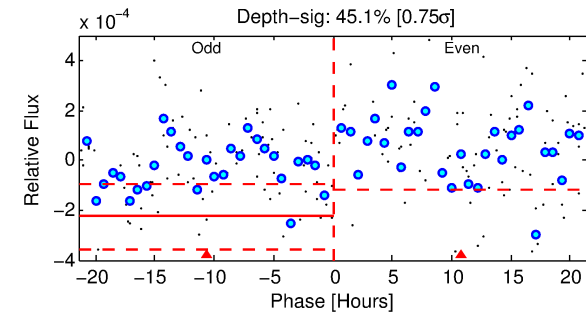
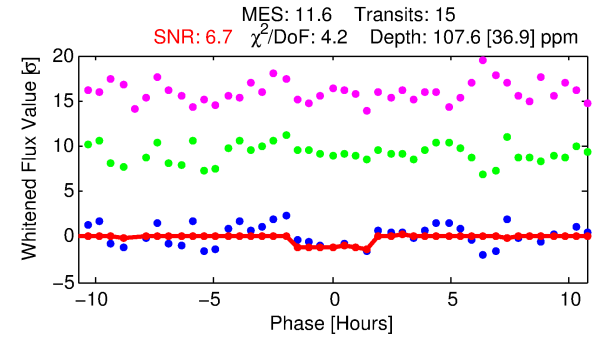
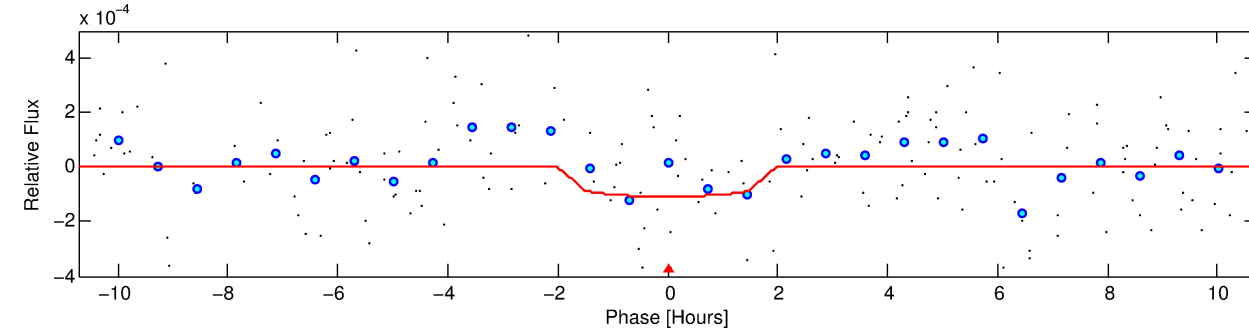
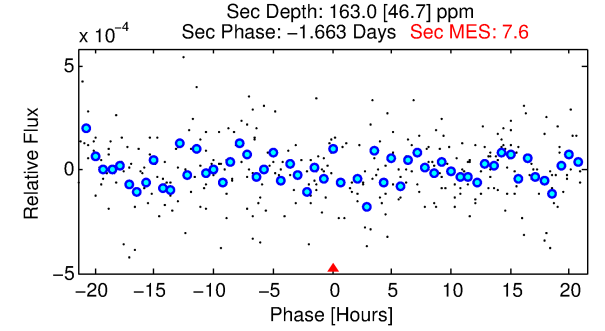
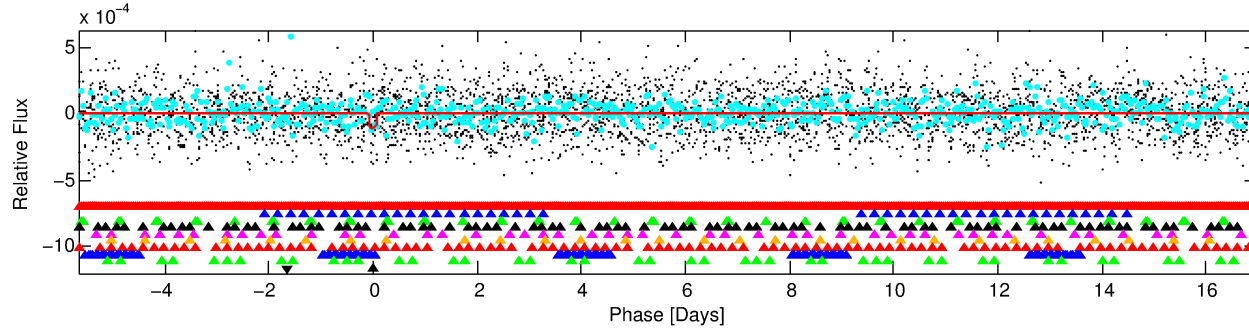
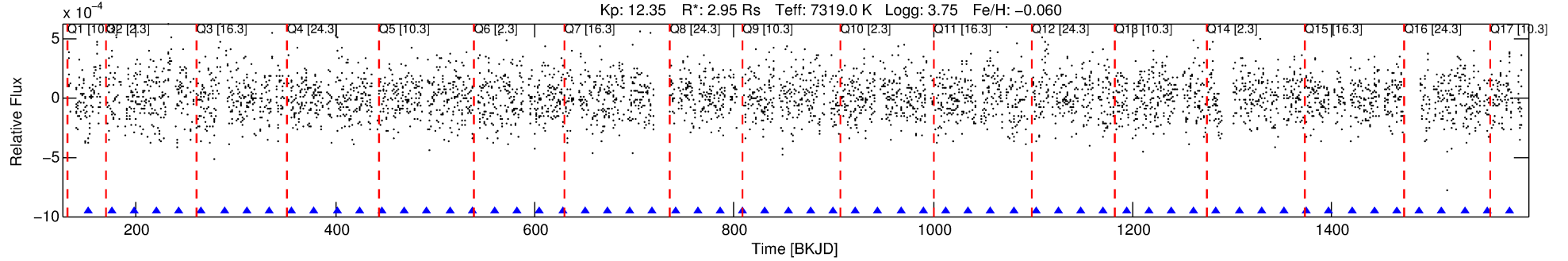
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002579906-10

No Significant Match Found

DV One-Page Summary

KIC: 2579906 Candidate: 10 of 10 Period: 22.632 d



DV Fit Results:

Period = 22.63217 [0.00115] d
Epoch = 152.6206 [0.0426] BKJD
Rp/R* = 0.0099 [0.0141]
a/R* = 41.46 [357.59]
b = 0.53 [11.43]
Seff = 619.98 [448.96]
Teq = 1272 [230] K
Rp = 3.19 [4.74] Re
a = 0.1900 [0.0827] AU
Ag = 317.89 [933.81] [0.34σ]
Teffp = 8307 [5932] K [1.18σ]

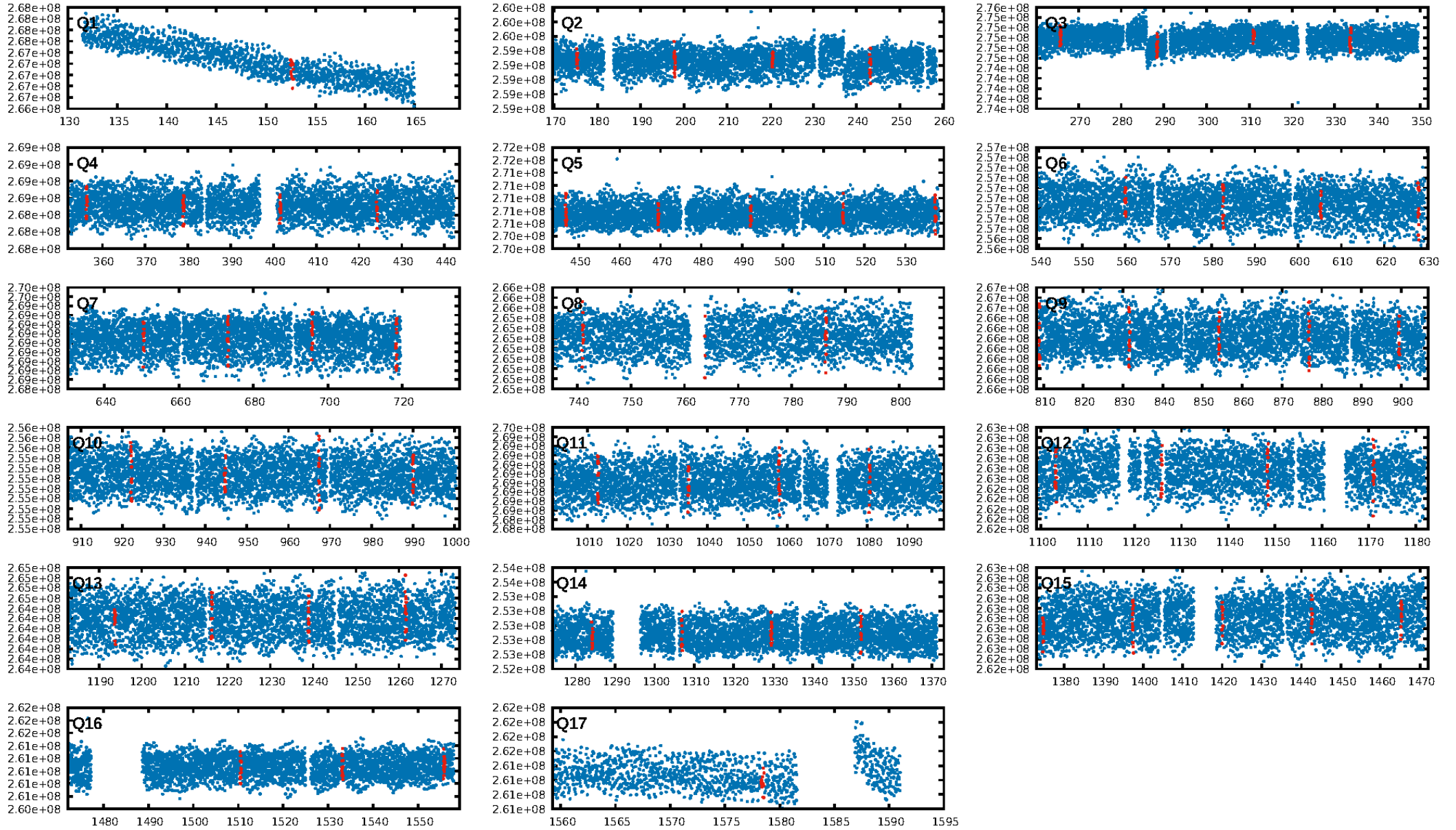
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.77σ]
LongPeriod-sig: 100.0% [17.77σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 89.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: -1.507
Centroid-sig: N/A
Centroid-so: 0.974 arcsec [1.35σ]
OotOffset-rm: 0.789 arcsec [1.34σ]
KicOffset-rm: 0.668 arcsec [1.16σ]
OotOffset-st: 3/3/4/2 [12]
KicOffset-st: 3/3/4/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 0.00 [0/17]

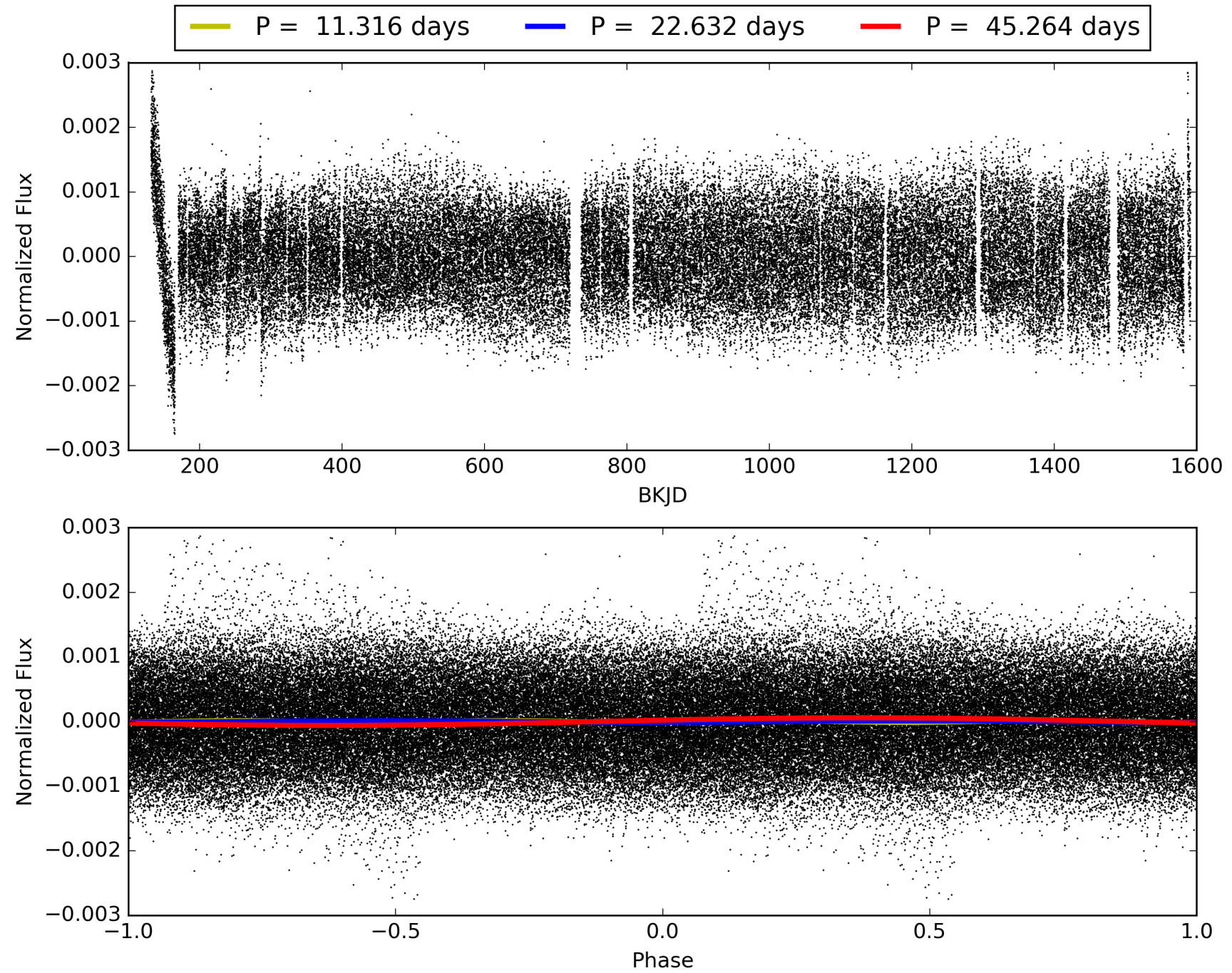
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:11:50 Z

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

TCE 002579906-10, PDC Light Curves

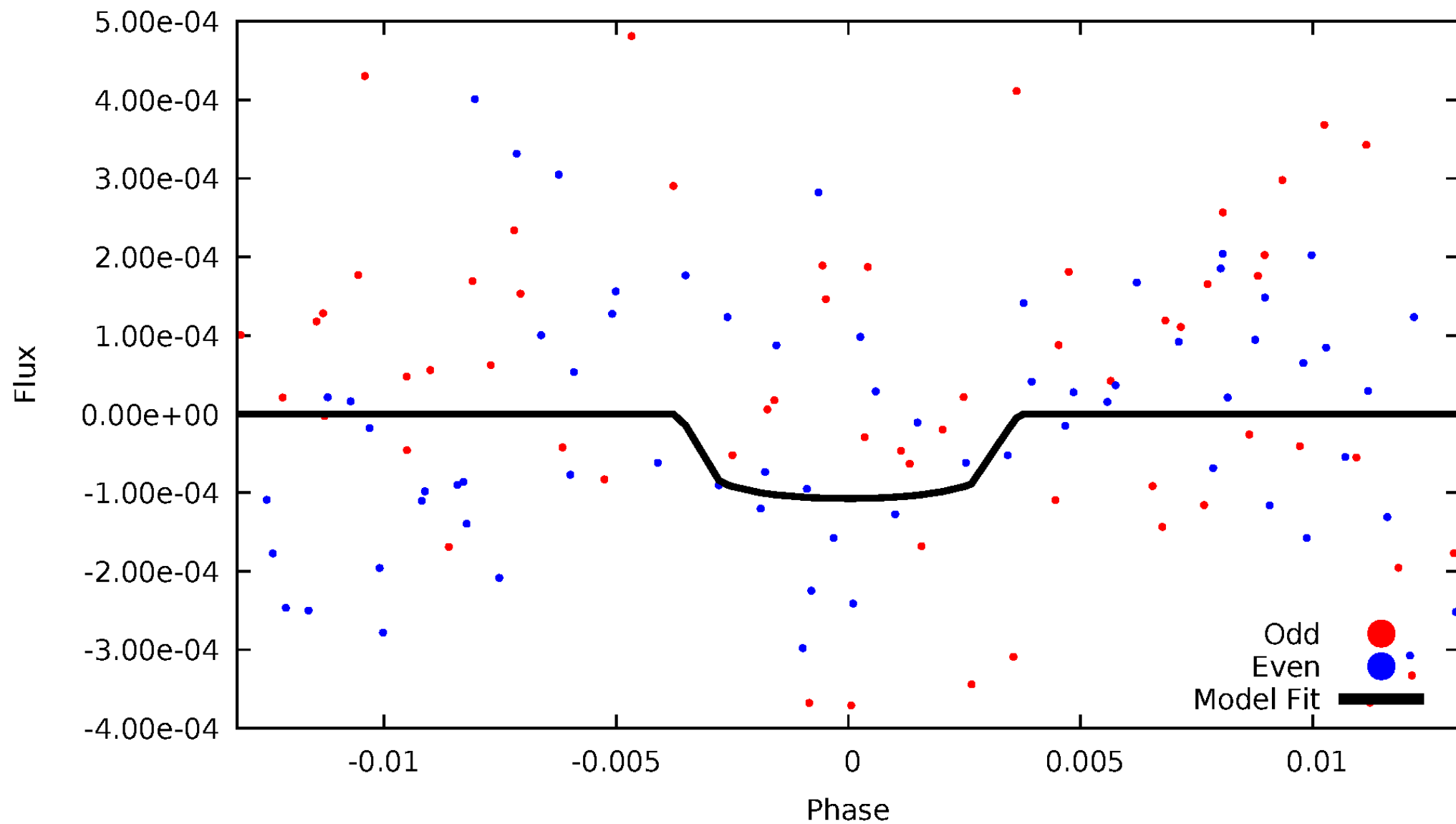


TCE 002579906-10



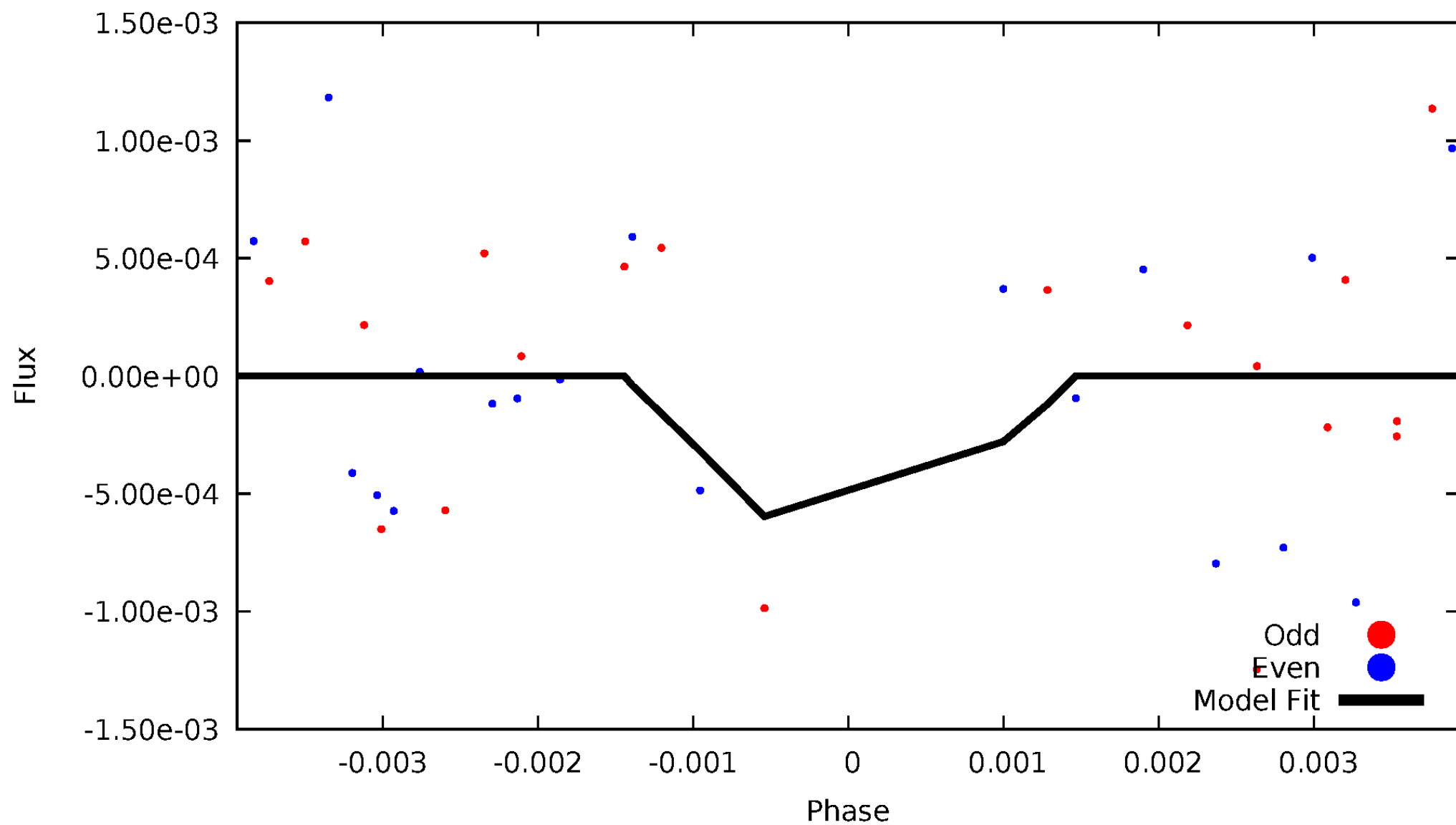
DV Odd/Even

TCE 002579906-10



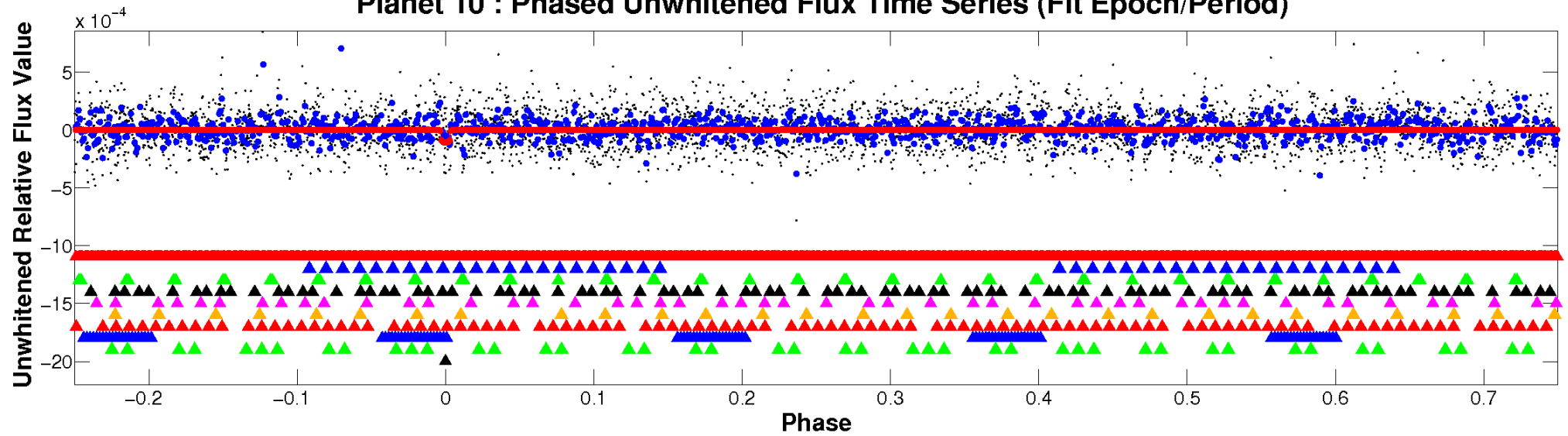
ALT Odd/Even

TCE 002579906-10

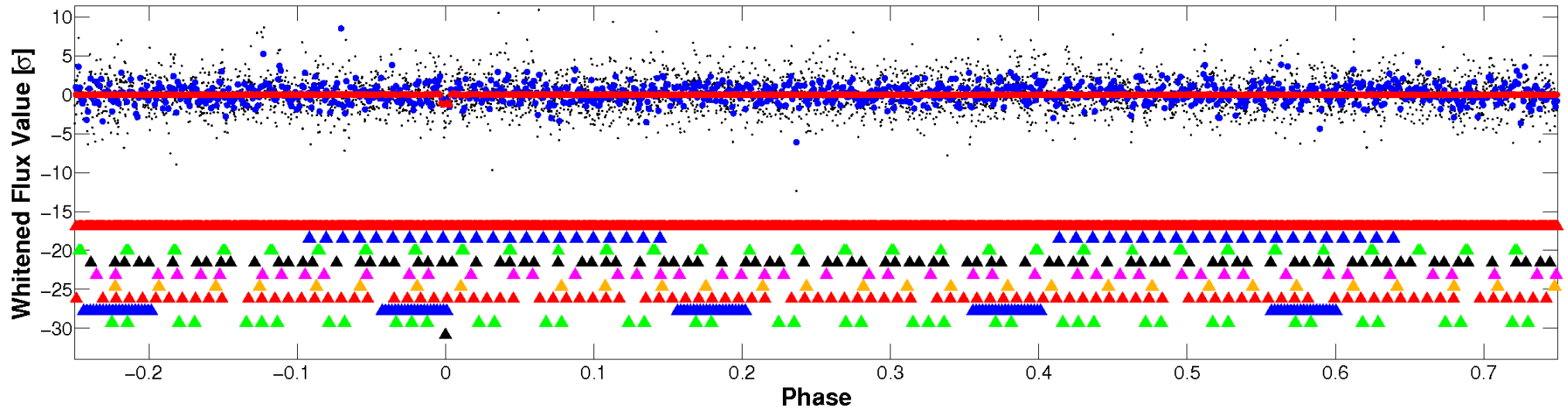


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

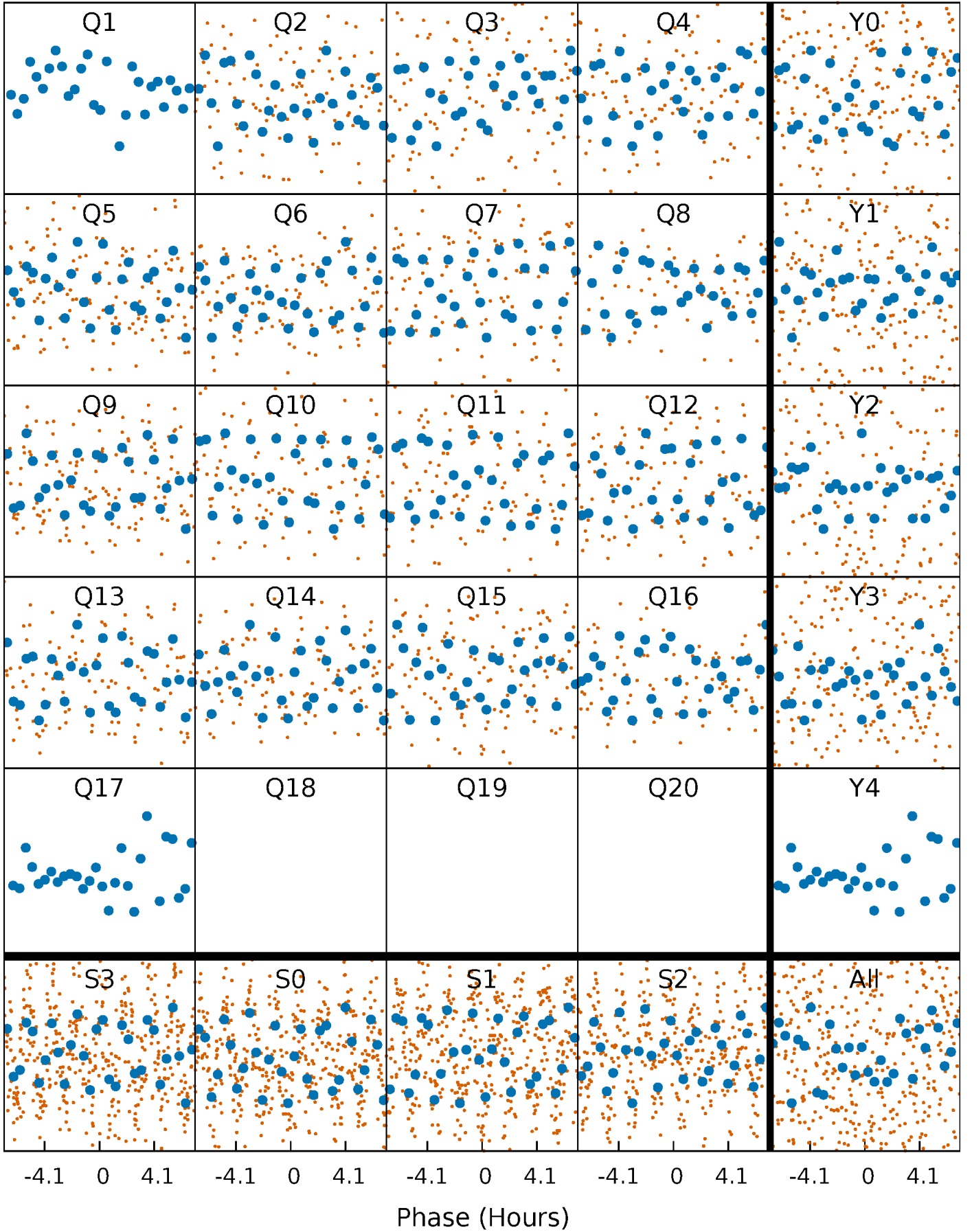


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



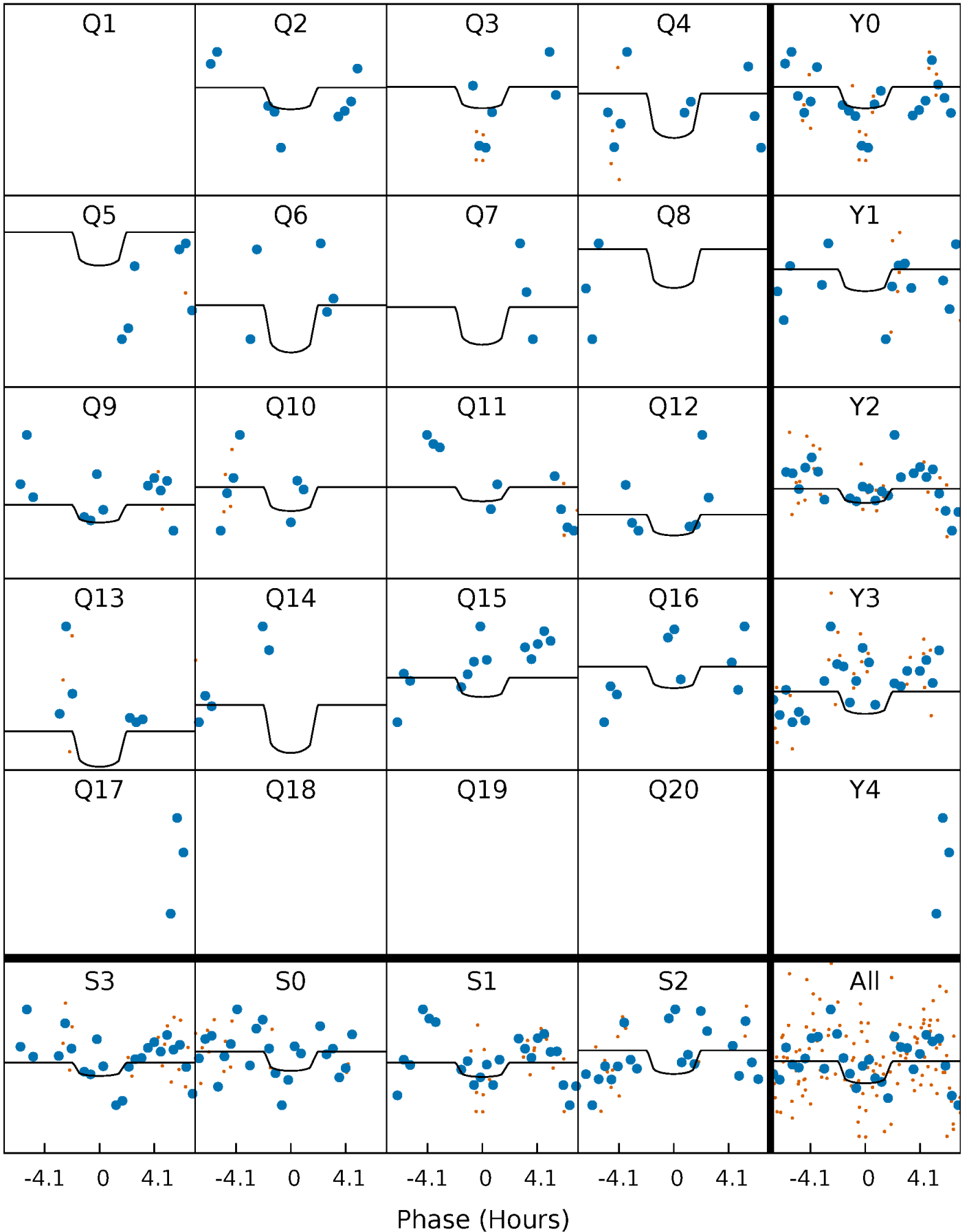
PDC Quarter-Phased Transit Curves

TCE 002579906-10 P= 22.632171 Days $T_0=152.620586$ (BKJD)



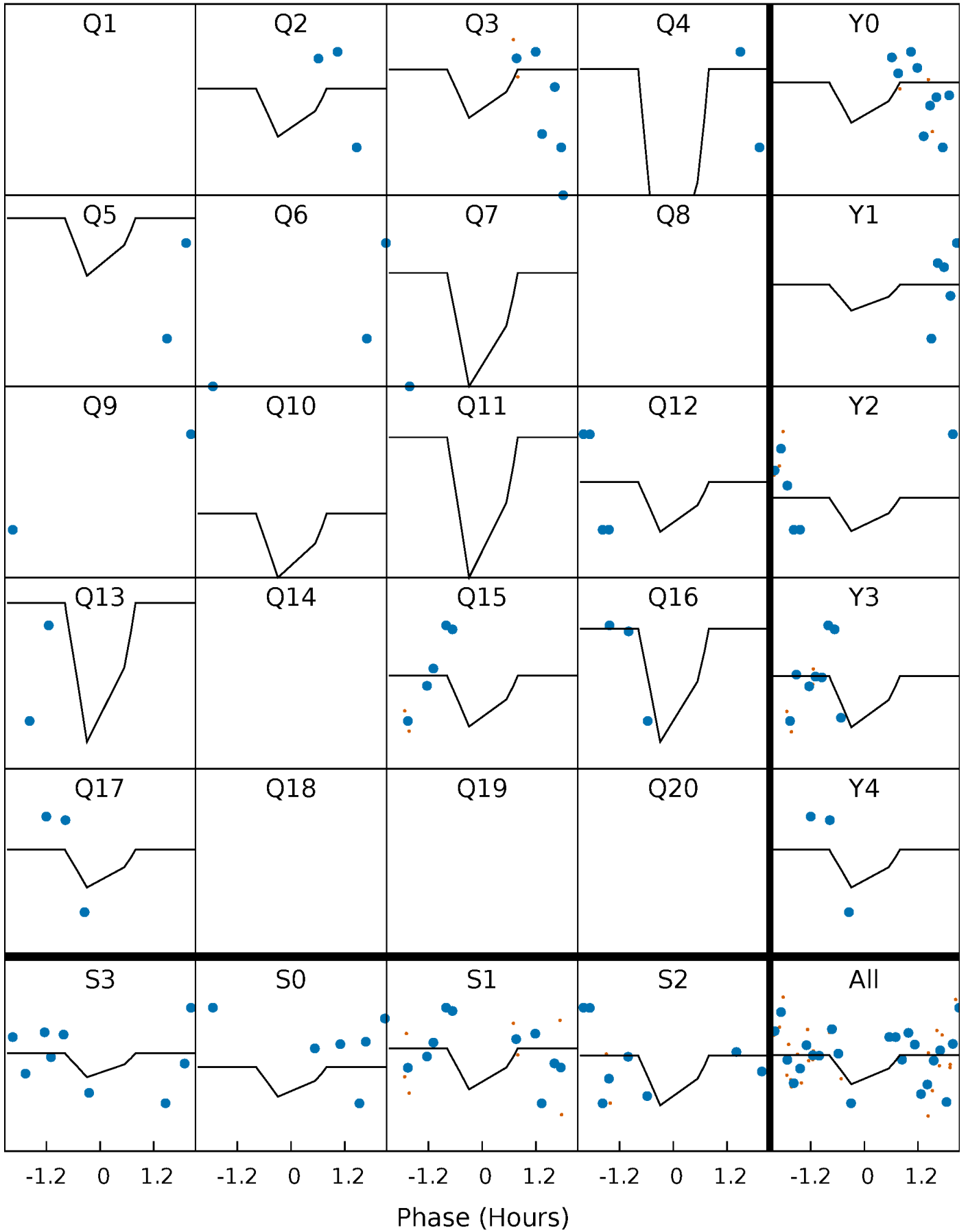
DV Quarter-Phased Transit Curves

TCE 002579906-10 P= 22.632171 Days $T_0=152.620586$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

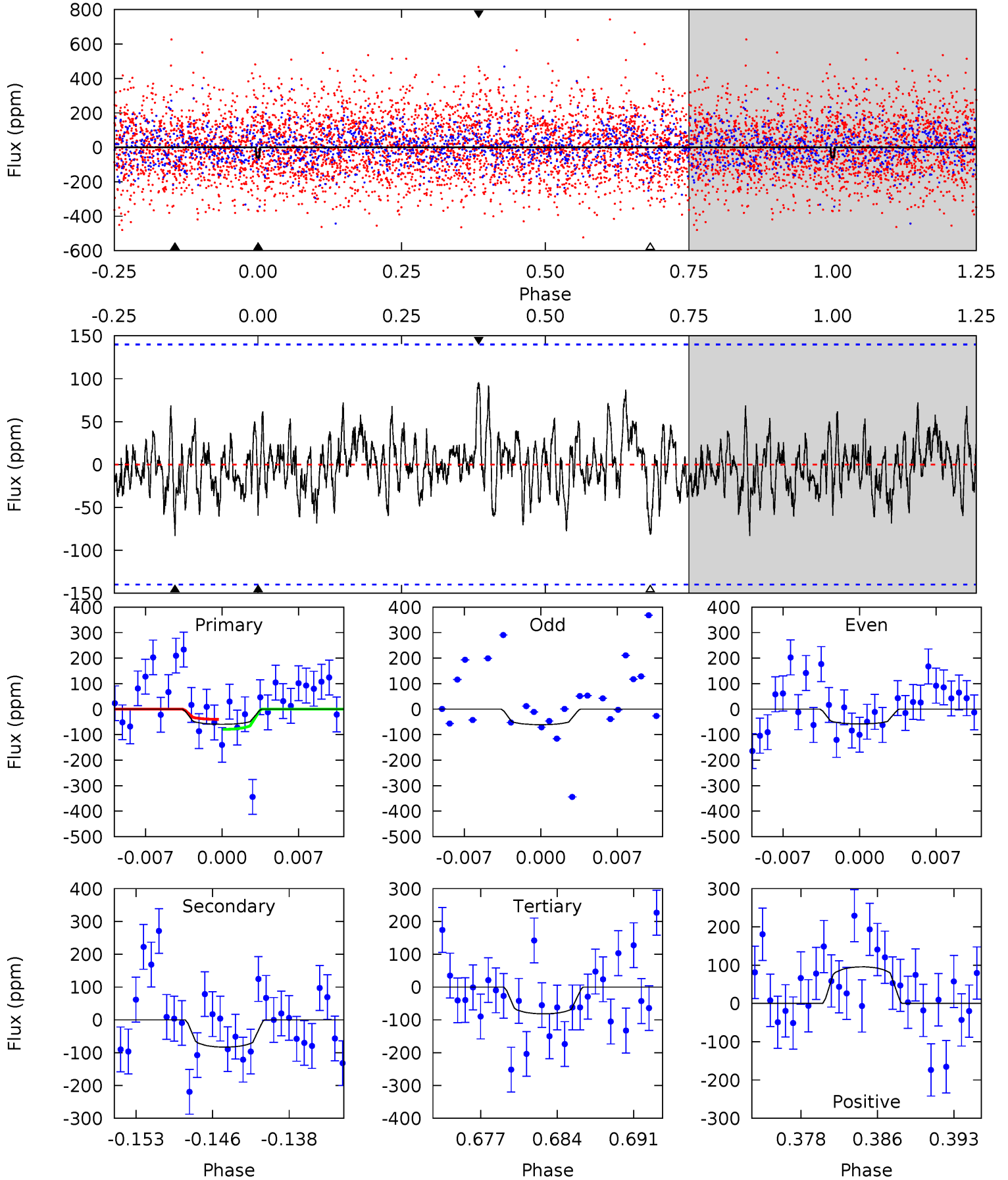
TCE 002579906-10 P= 22.637915 Days $T_0=152.523389$ (BKJD)



DV Model-Shift Uniqueness Test

002579906-10, P = 22.632171 Days, E = 129.988415 Days

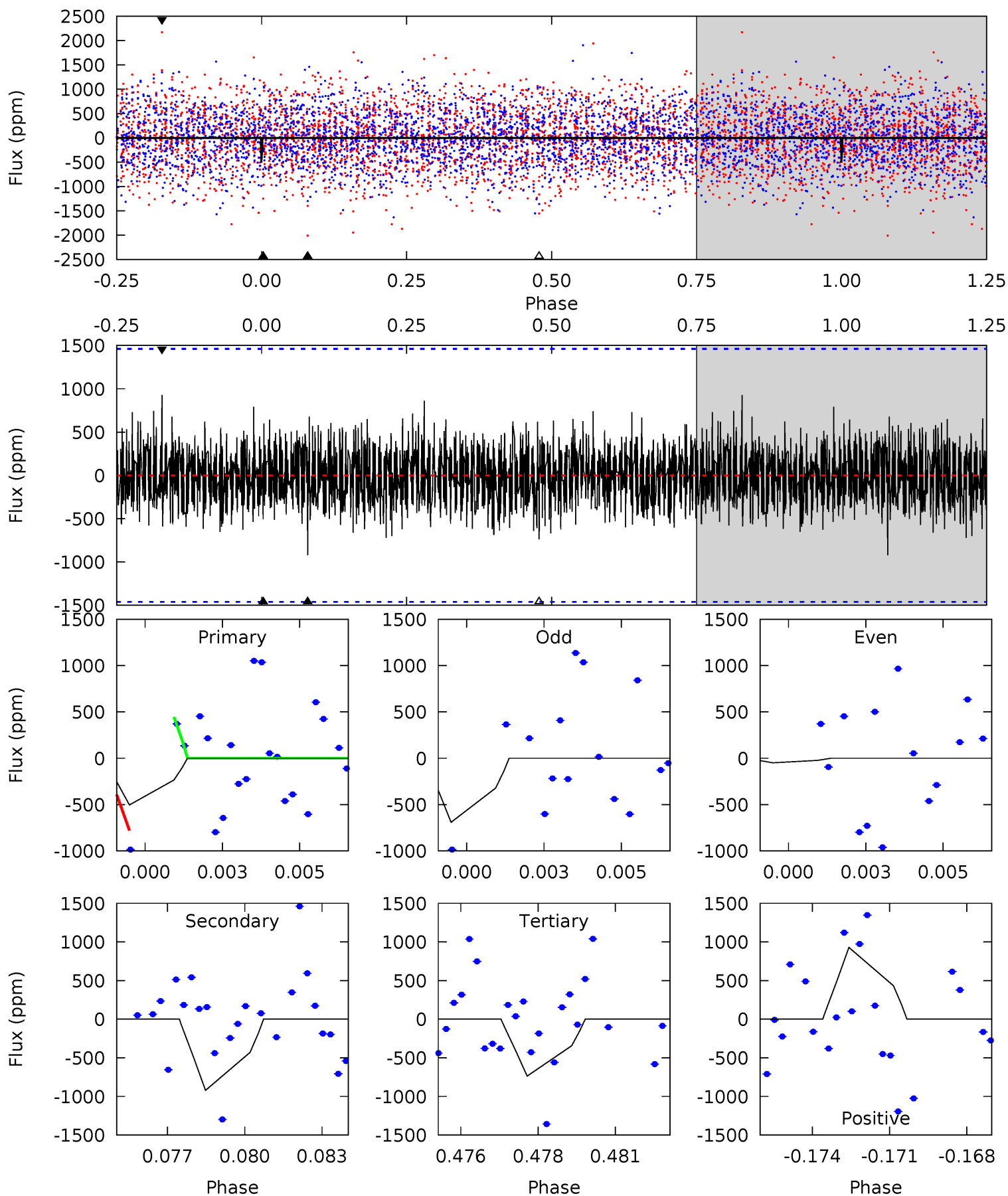
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.16	3.02	2.97	3.48	5.09	2.68	1.03	-0.81	-1.32	0.05	-0.46	0.06	1.04	0.54	0.72



Alt Model-Shift Uniqueness Test

002579906-10, P = 22.637915 Days, E = 129.885474 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.82	3.32	2.66	3.35	5.27	3.00	0.97	-0.84	-1.53	0.67	-0.03	1.16	0	0.50	0.61



Stellar Parameters For KIC 002579906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7319^{+228}_{-304}	$3.750^{+0.417}_{-0.098}$	$-0.060^{+0.200}_{-0.350}$	$2.951^{+0.435}_{-1.306}$	$1.787^{+0.205}_{-0.380}$	$0.098^{+0.342}_{-0.031}$
	+3%/-4%	+11%/-3%	+333%/-583%	+15%/-44%	+11%/-21%	+349%/-32%
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 002579906-10 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-83 ± 27	$4.09^{+3.92}_{-2.60}$	1730^{+124}_{-218}	5787^{+5538}_{-1429}	97^{+689}_{-73}
Alt.	-921 ± 277	$7.60^{+4.42}_{-4.15}$	1735^{+110}_{-186}	8001^{+5552}_{-1789}	324^{+1044}_{-205}

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 $A_{obs} \gg 1.0$

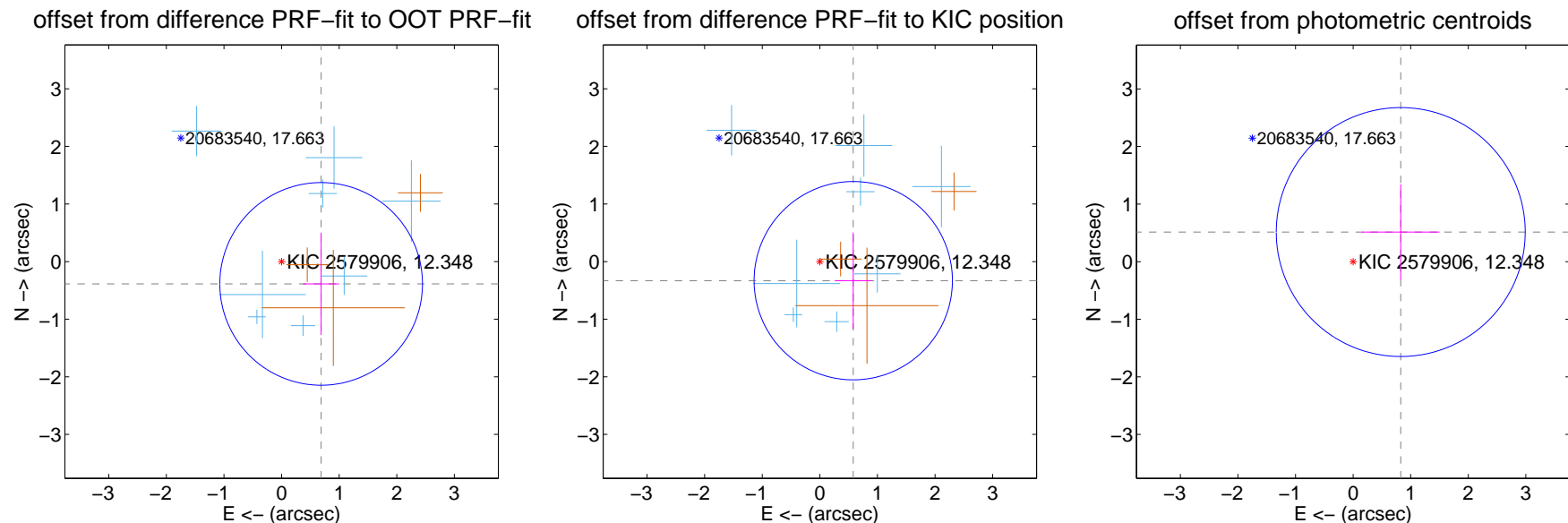
DV Centroid Data

Supplemental centroid analysis for 002579906-10. Kepler magnitude: 12.35. Transit SNR 6.67

There are 8 quarters with good PRF difference image offsets

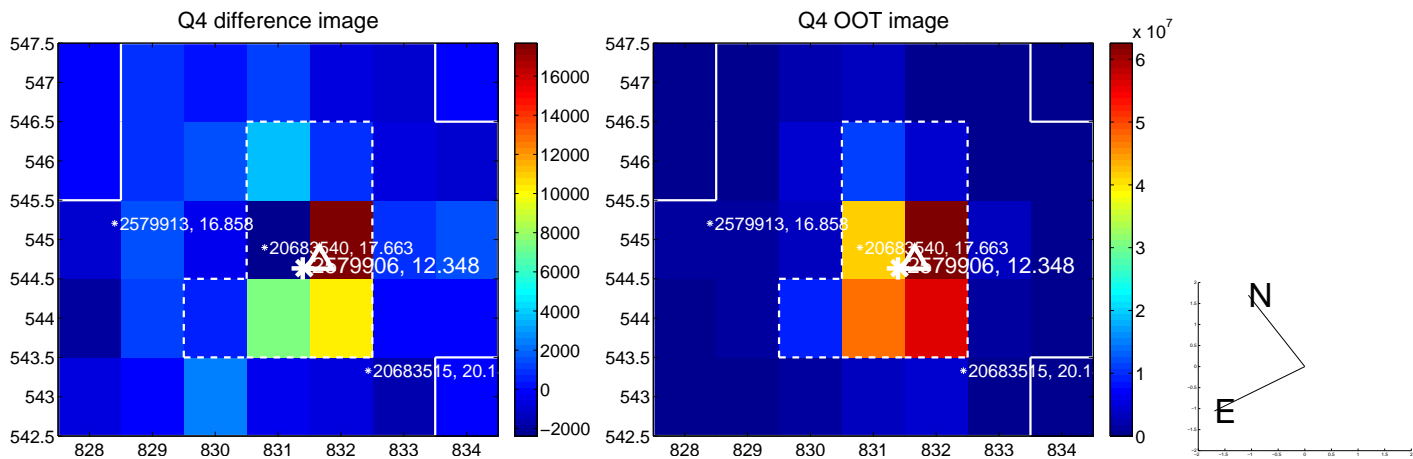
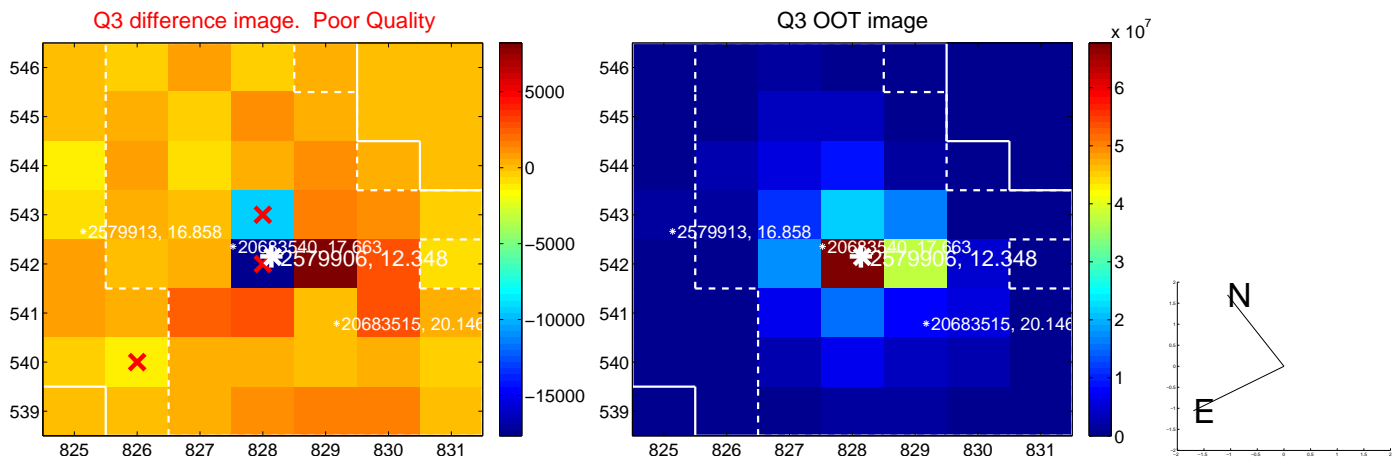
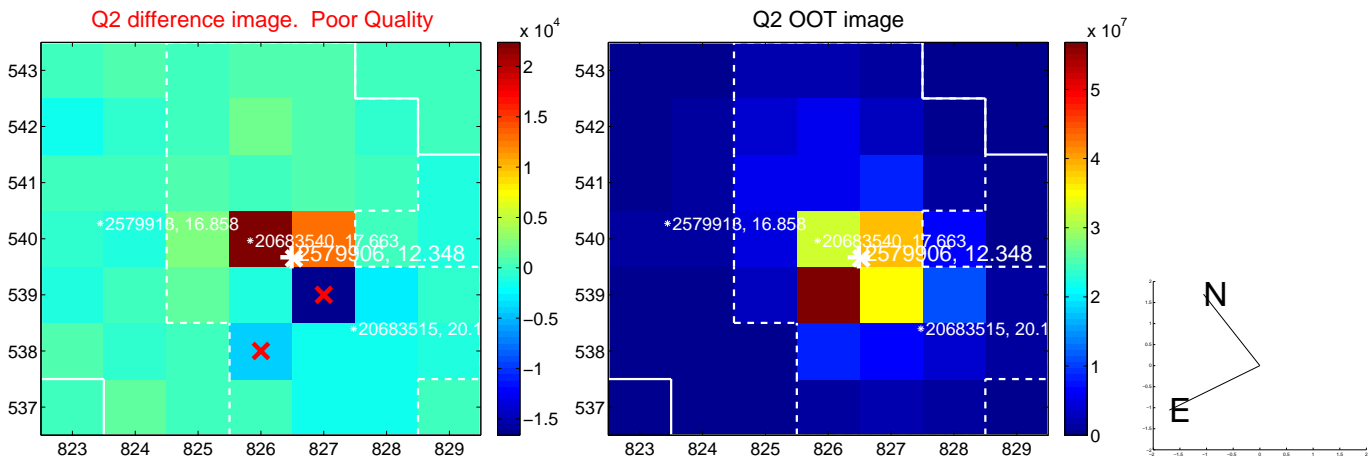
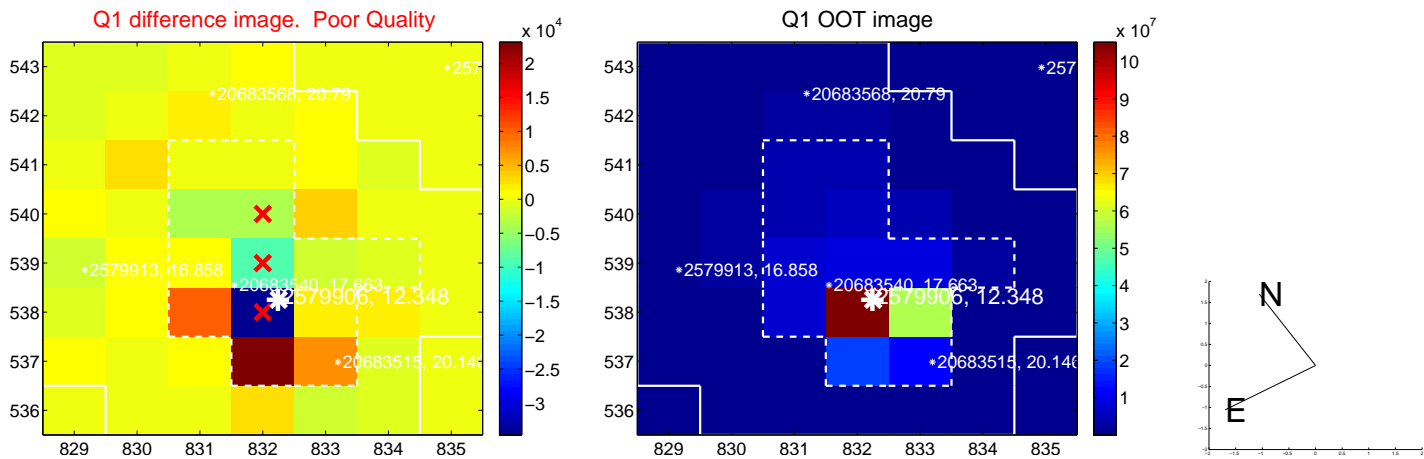
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.789 ± 0.586	1.34	-0.687 ± 0.314	-0.387 ± 0.889
PRF-fit source offset from KIC position	0.668 ± 0.574	1.16	-0.580 ± 0.323	-0.332 ± 0.837
photometric centroid source offset	0.97 ± 0.72	1.35	-0.83 ± 0.68	0.51 ± 0.83

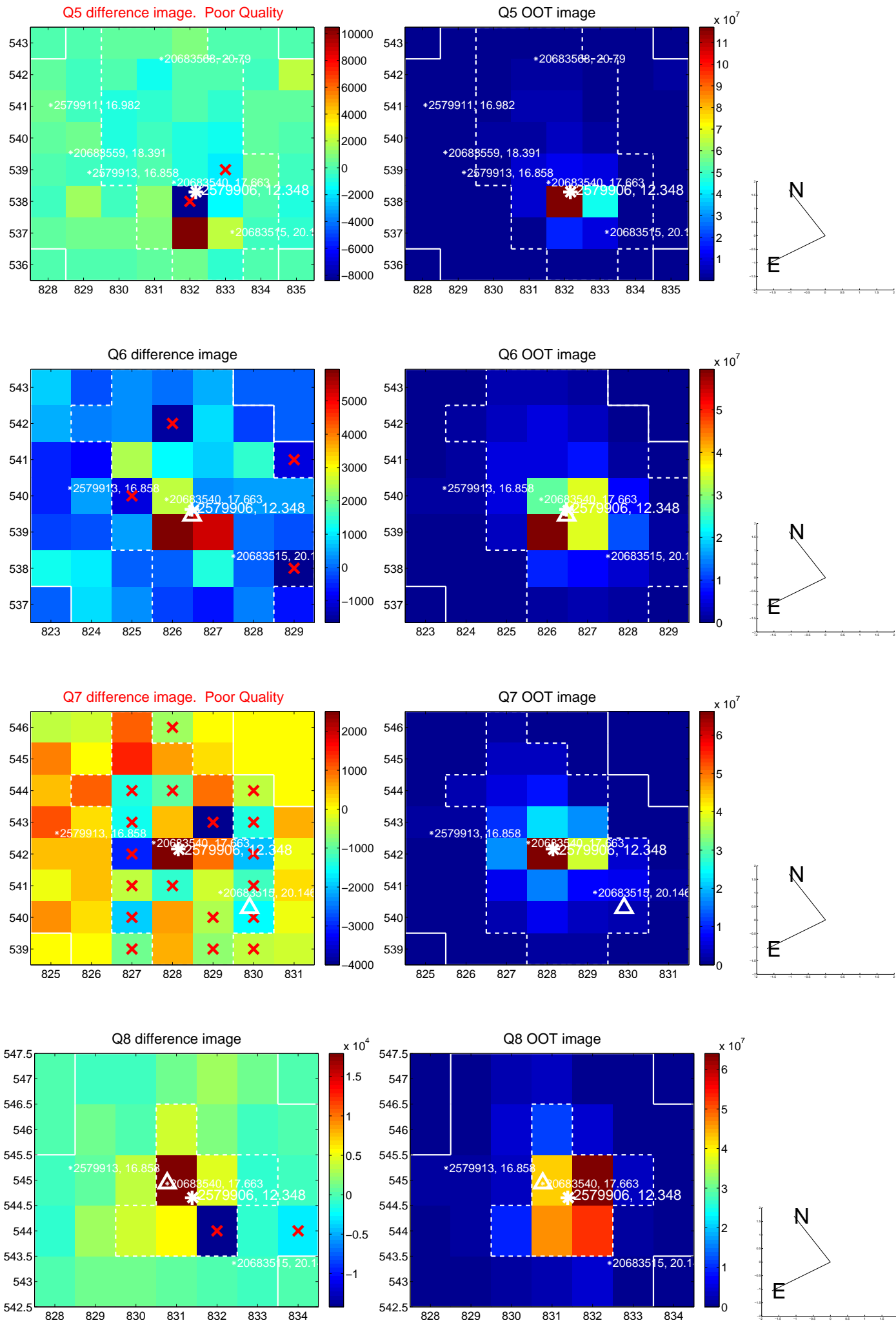


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

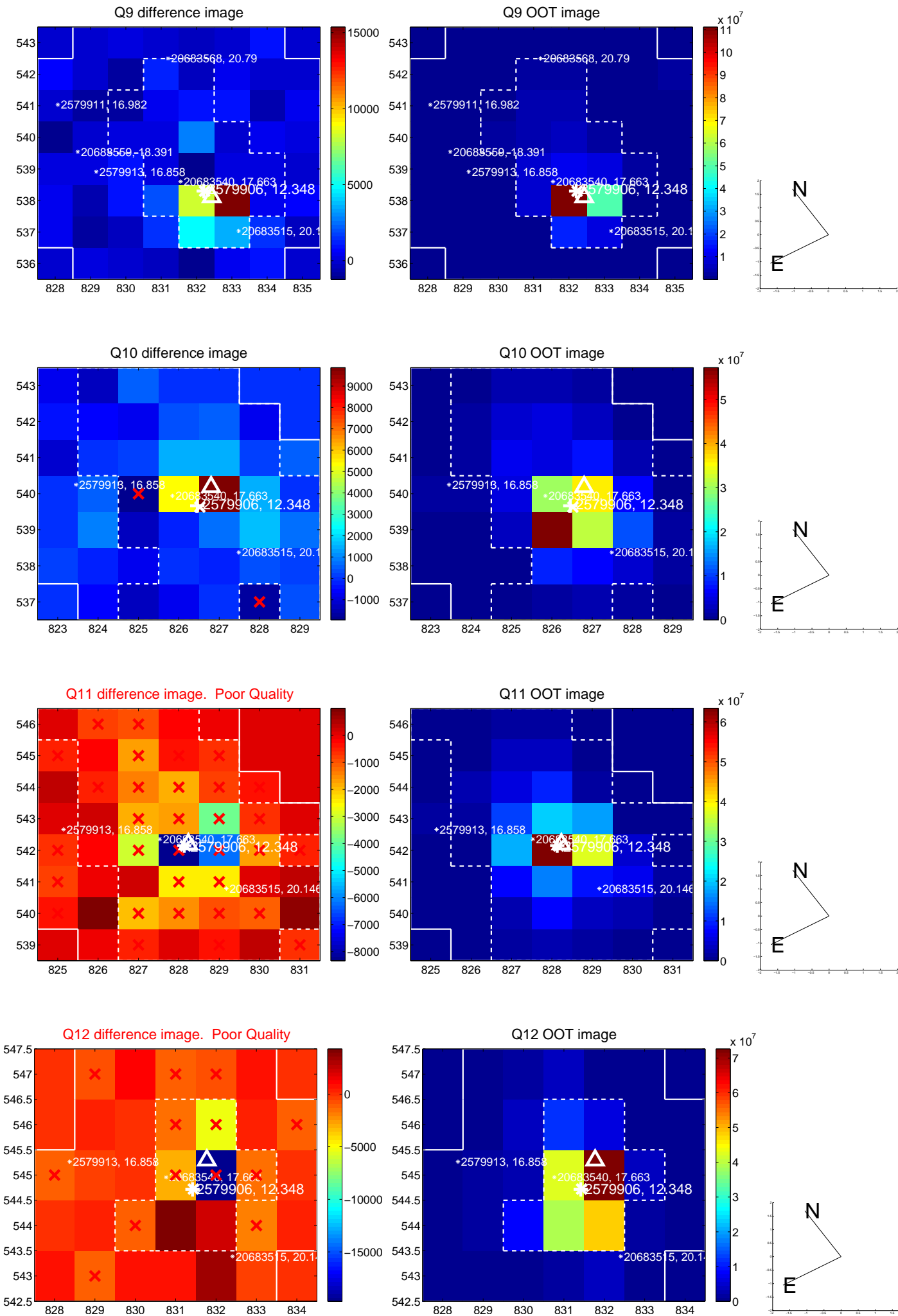
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



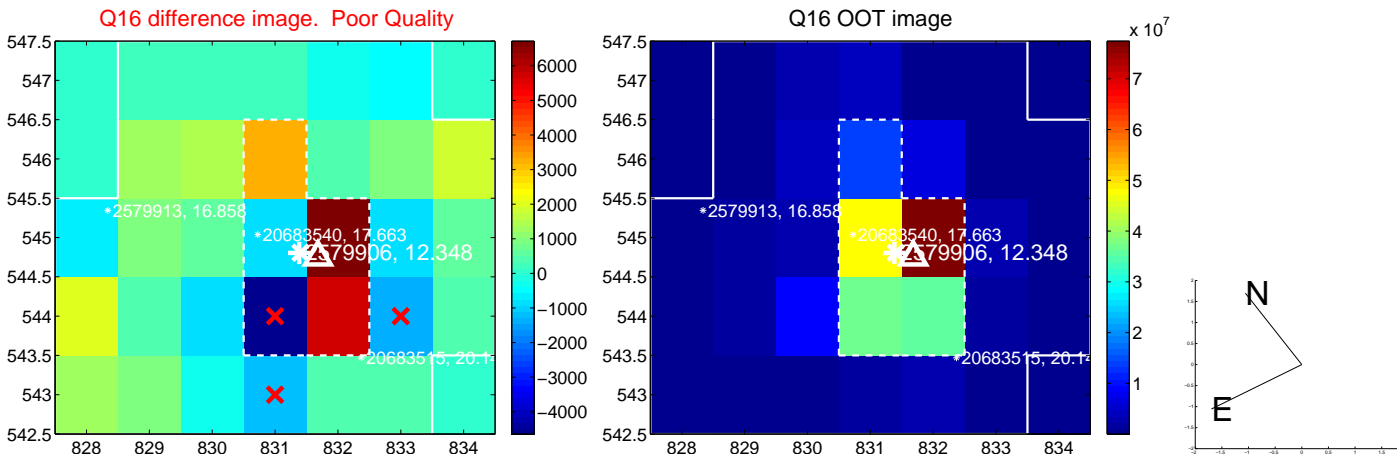
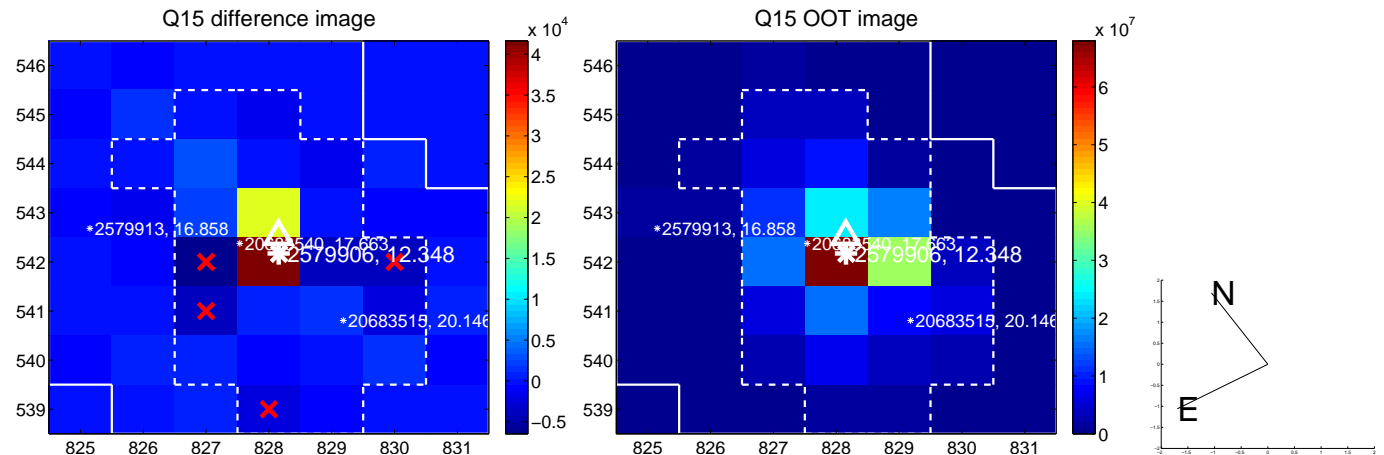
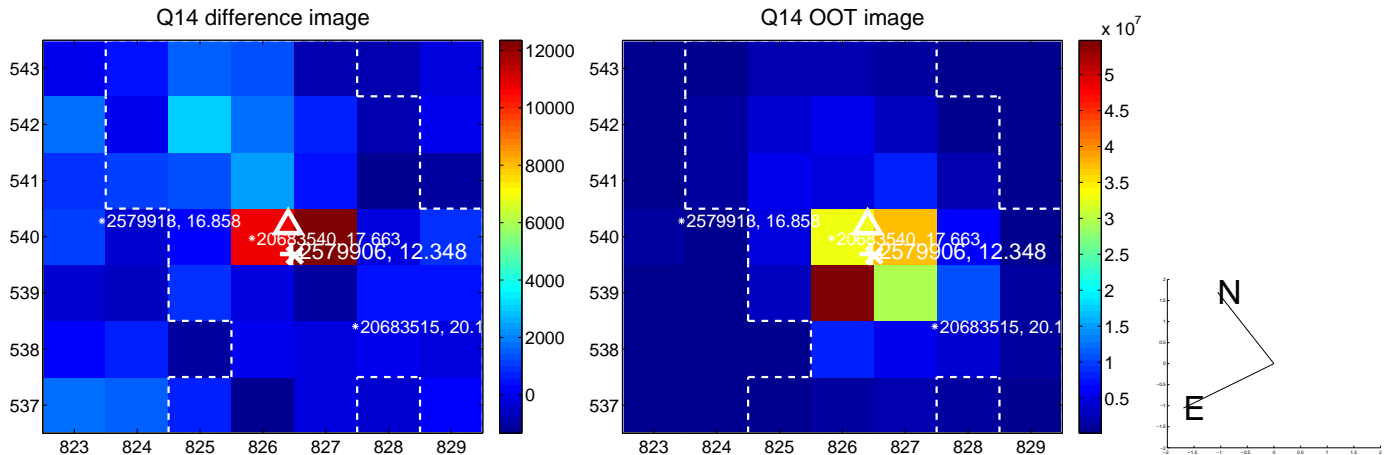
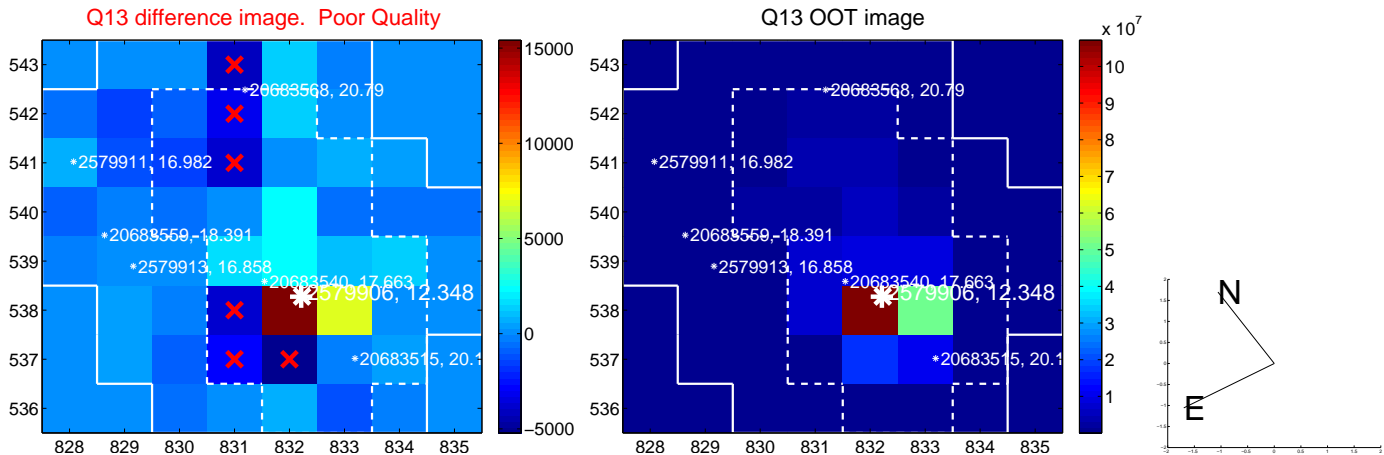
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



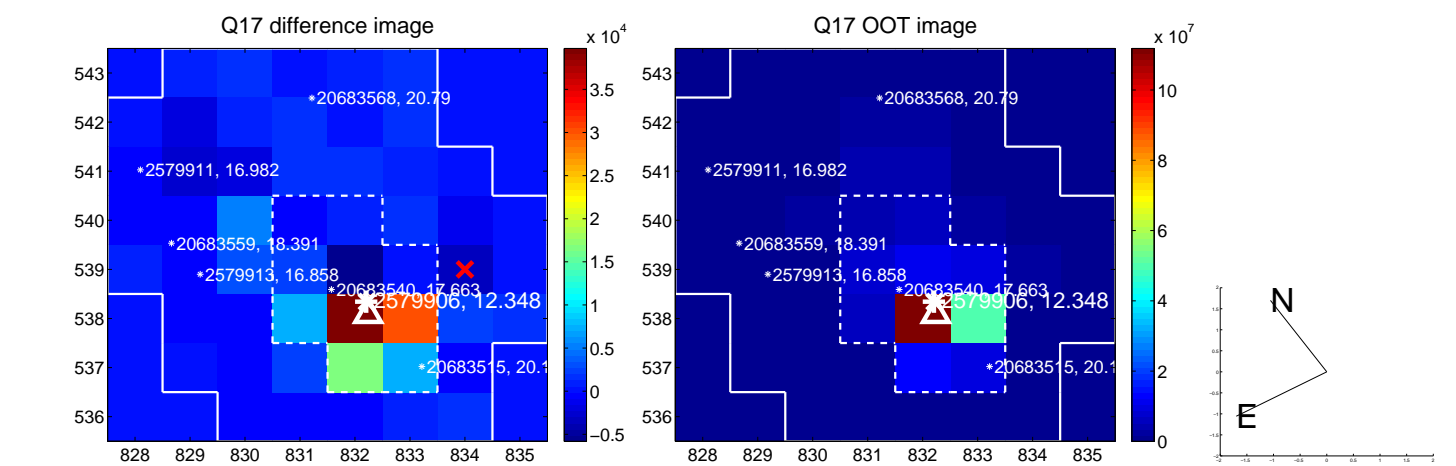
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



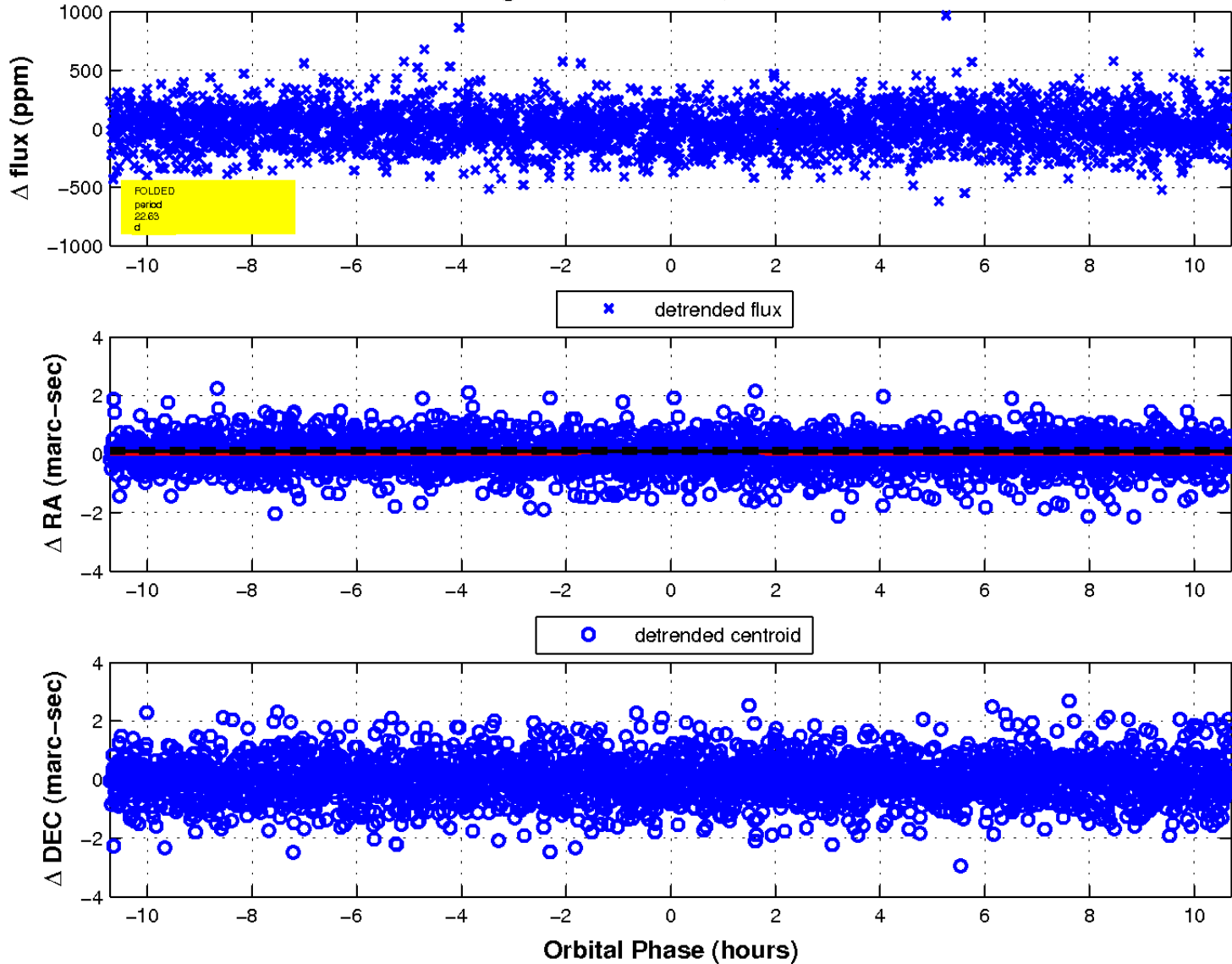
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 10 of 10



UKIRT Image

