

KIC 005702637

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})
005702637-01	OBS	No	0.523486	132.015658	130.1	1.589	17.6	11.8	1.48	7057	1.97	23808.59
005702637-02	OBS	No	0.523493	131.869965	234.2	1.008	17.1	18.7	1.48	7057	2.65	23808.13
005702637-03	OBS	No	0.523490	131.624963	203.0	1.459	11.1	13.4	1.48	7057	2.14	23808.35
005702637-04	OBS	No	1.314681	132.777875	125.1	3.500	8.3	-1.0	1.48	7057	1.68	6974.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005702637-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_RESOLVED_OFFSET
005702637-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_UNCERTAIN
005702637-03	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005702637-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_NOFITS

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 005702637-01

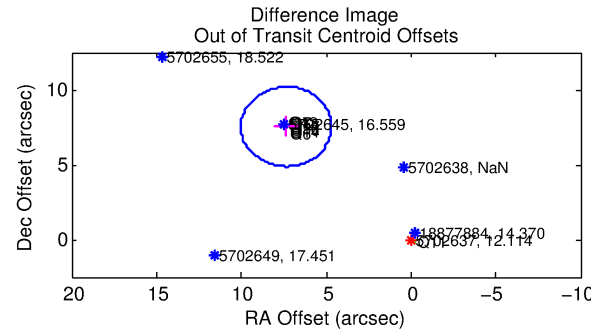
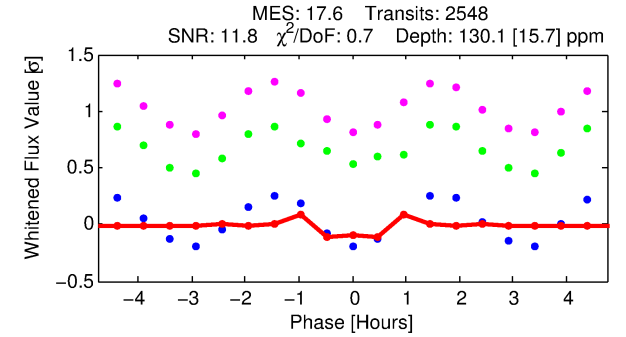
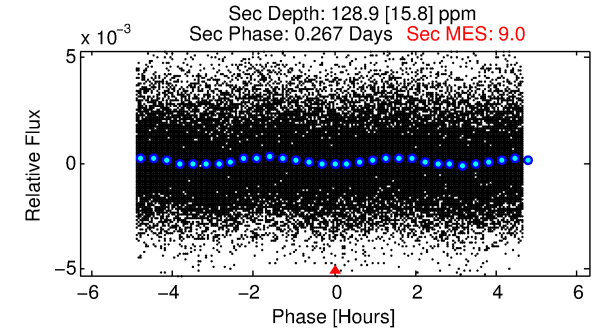
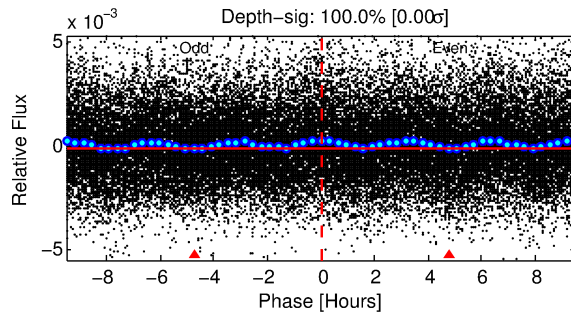
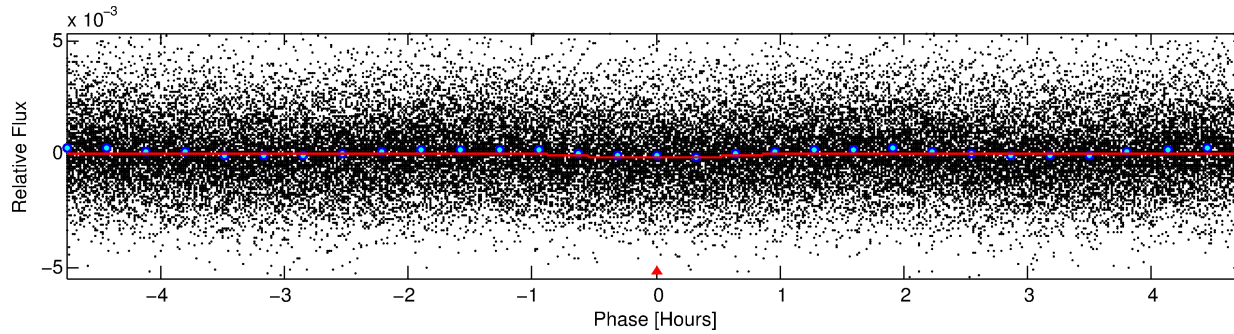
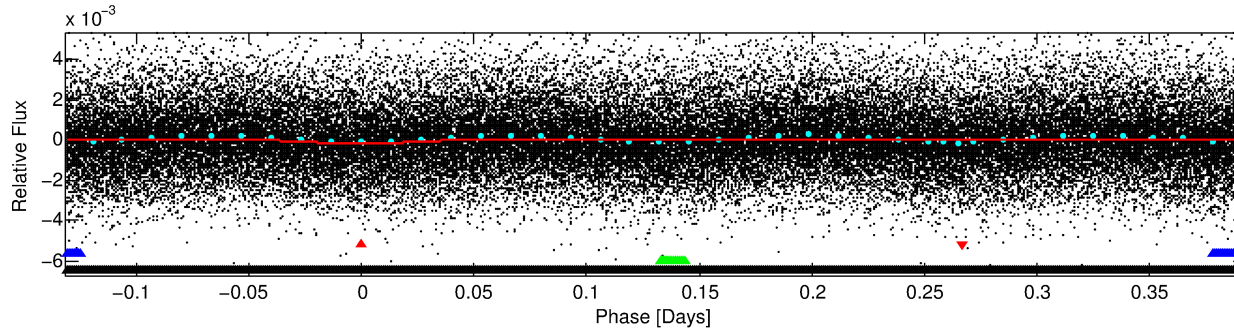
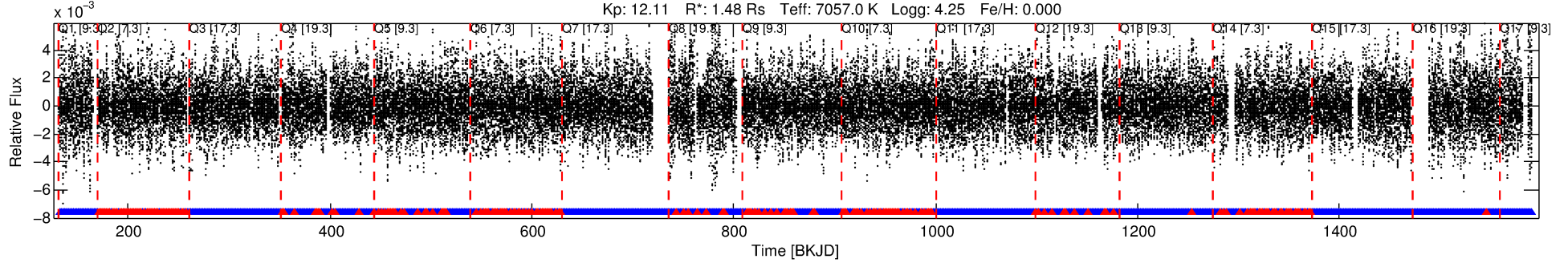
No Significant Match Found

DV One-Page Summary

KIC: 5702637 Candidate: 1 of 4 Period: 0.523 d

KOI: K04217 Corr: No Ephemeris Match

Kp: 12.11 R*: 1.48 Rs Teff: 7057.0 K Logg: 4.25 Fe/H: 0.000



DV Fit Results:

Period = 0.52349 [0.00001] d
Epoch = 132.0157 [0.0008] BKJD
Rp/R* = 0.0122 [0.0023]
a/R* = 1.50 [0.89]
b = 0.90 [0.23]
Seff = 23808.59 [10048.53]
Teq = 3167 [334] K
Rp = 1.97 [0.76] Re
a = 0.0143 [0.0040] AU
Ag = 3.75 [2.09] [1.32σ]
Teff = 6816 [719] K [4.60σ]

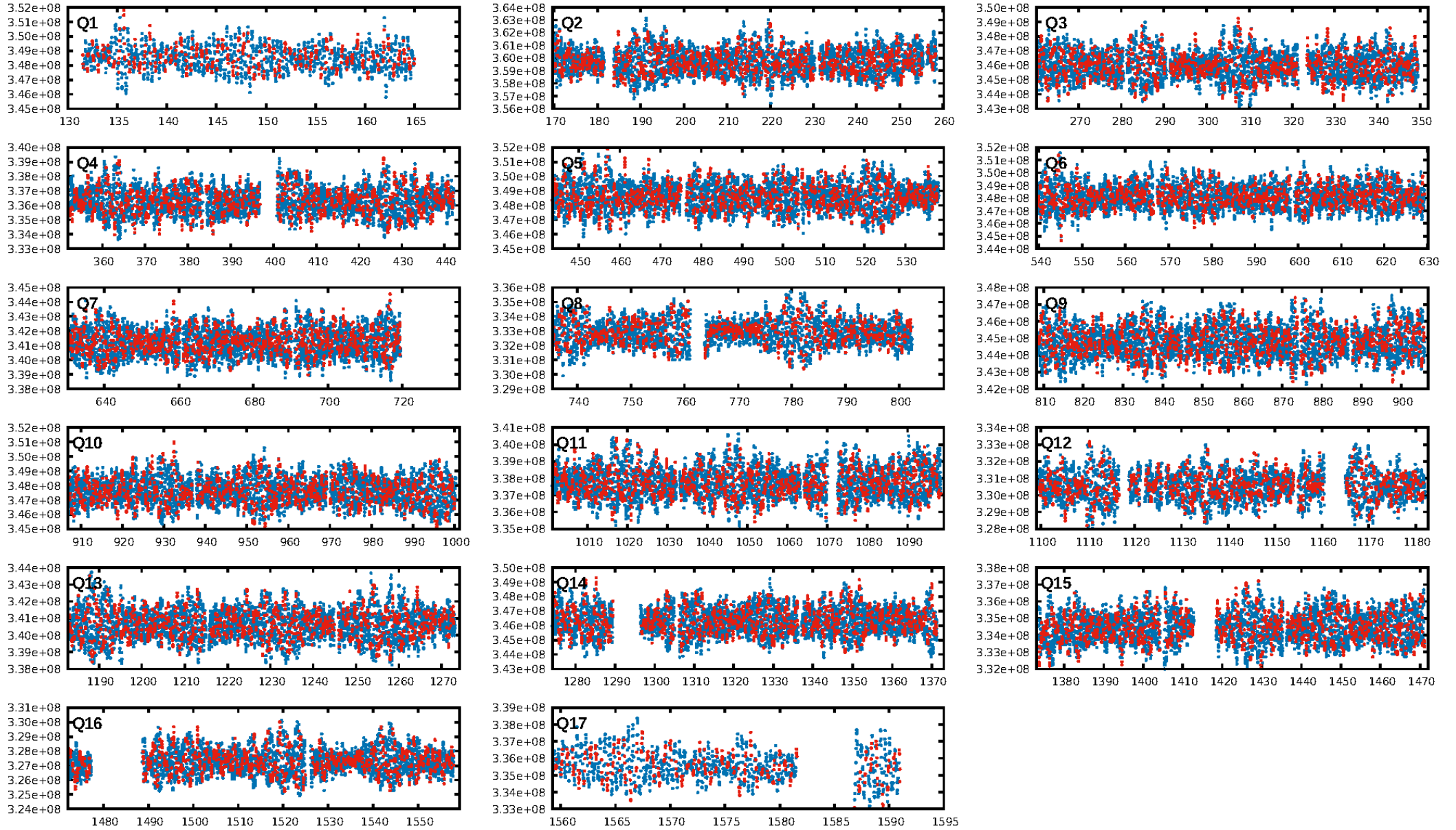
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.87 [2127/2432]
GhostDiagnostic-chr: 0.9366
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 10.536 arcsec [11.88σ]
KicOffset-rm: 10.505 arcsec [12.74σ]
OotOffset-st: 4/3/2/4 [13]
KicOffset-st: 4/3/2/4 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.00 [0/17]

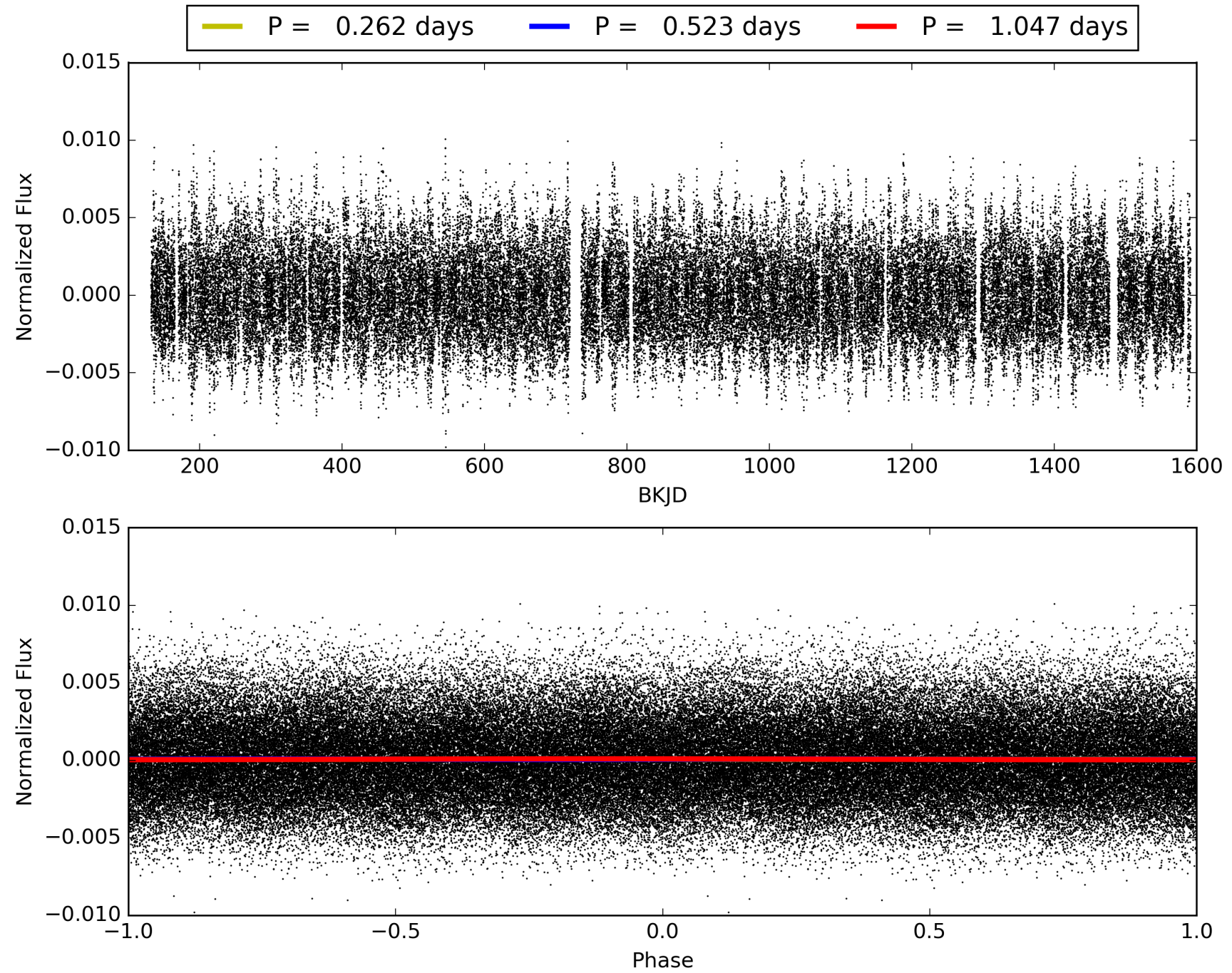
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:30:27 Z

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

TCE 005702637-01, PDC Light Curves

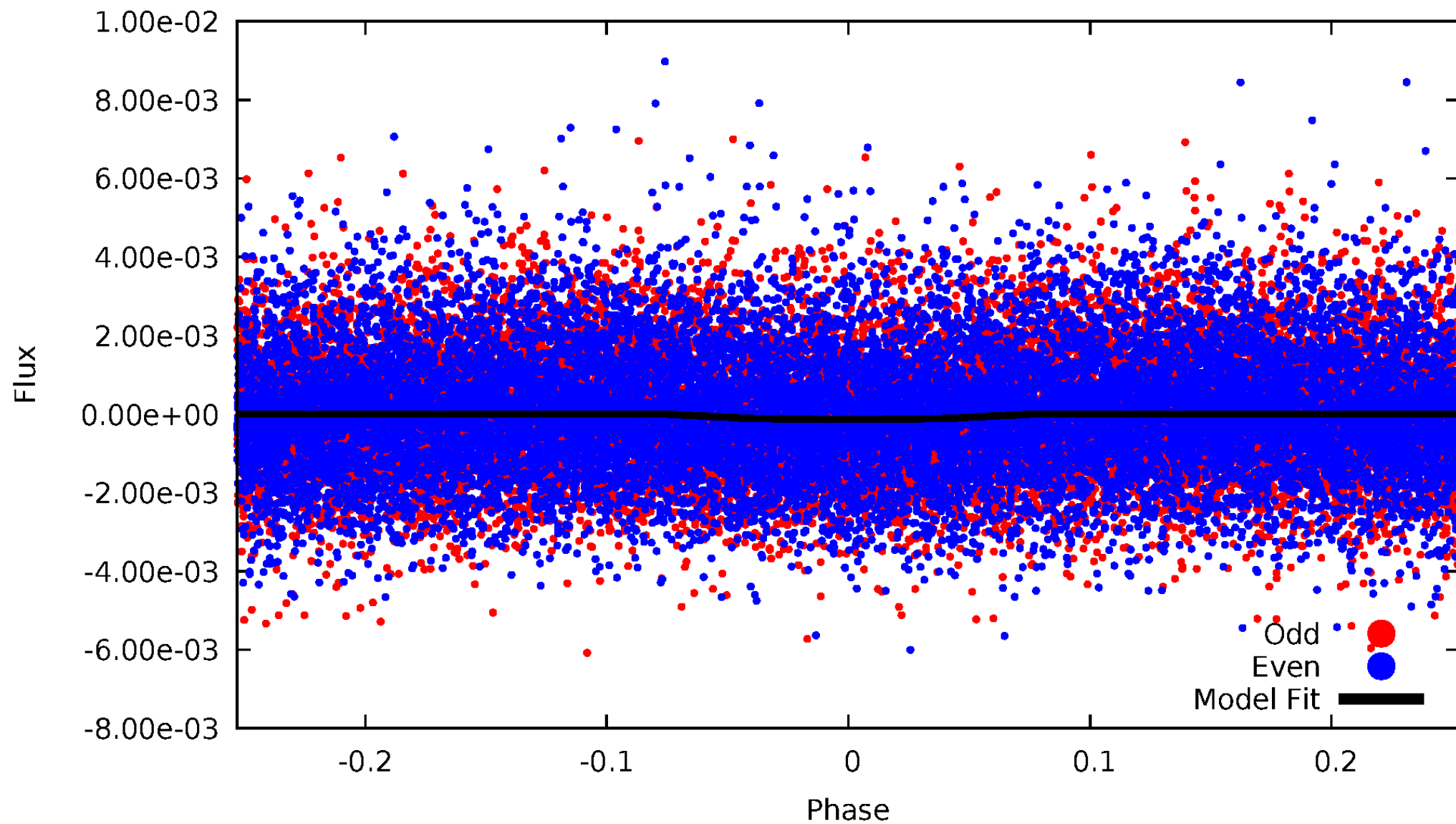


TCE 005702637-01



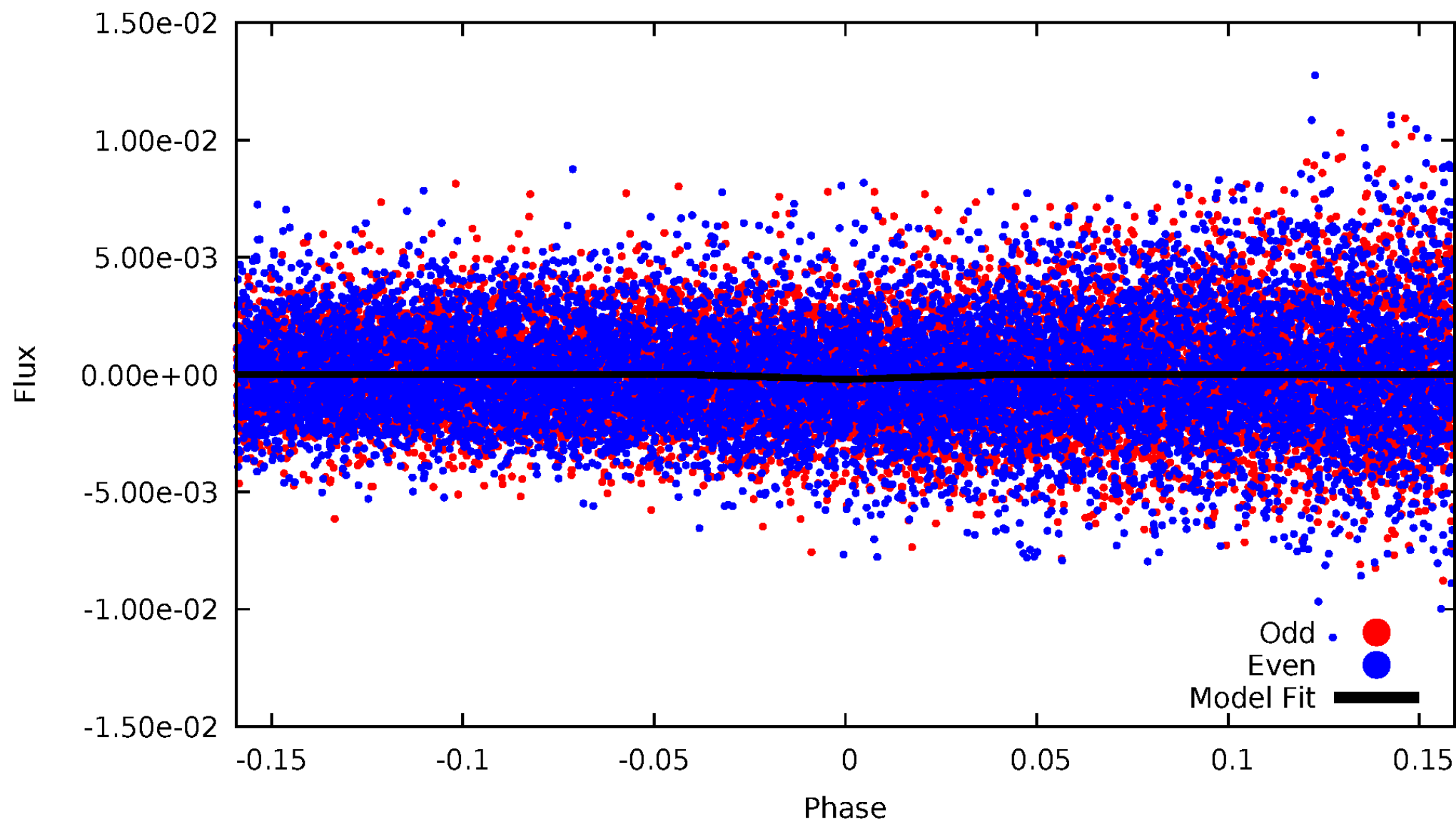
DV Odd/Even

TCE 005702637-01



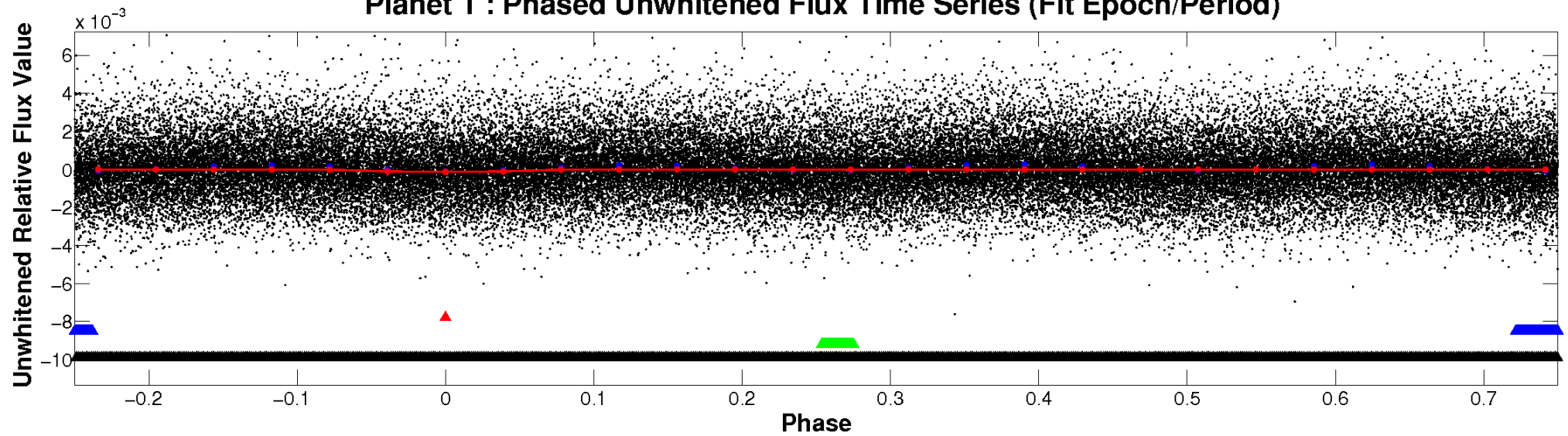
ALT Odd/Even

TCE 005702637-01

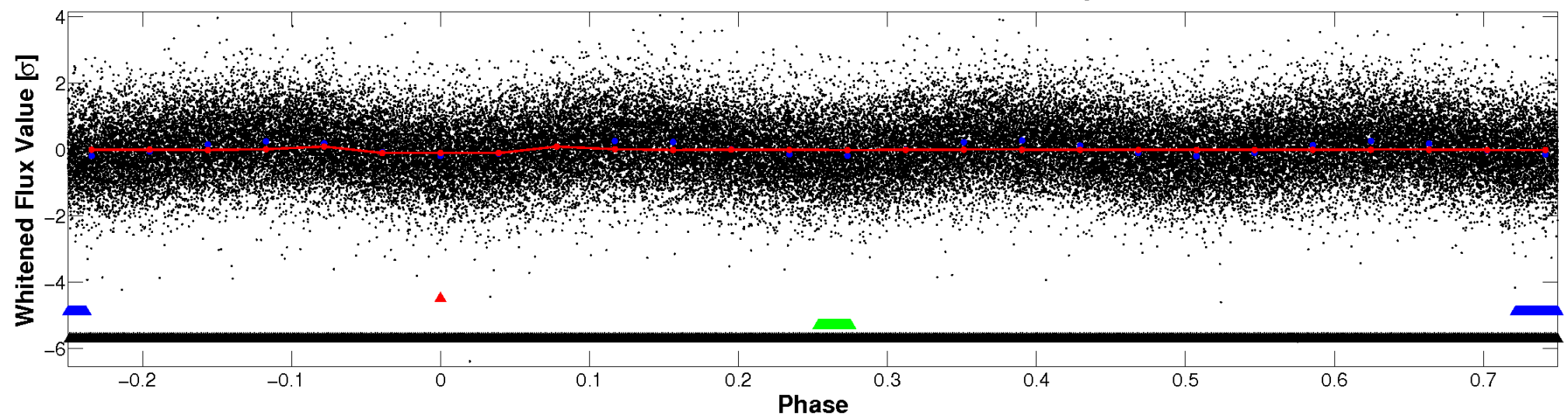


Non-Whitened Vs. Whitened Light Curve

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

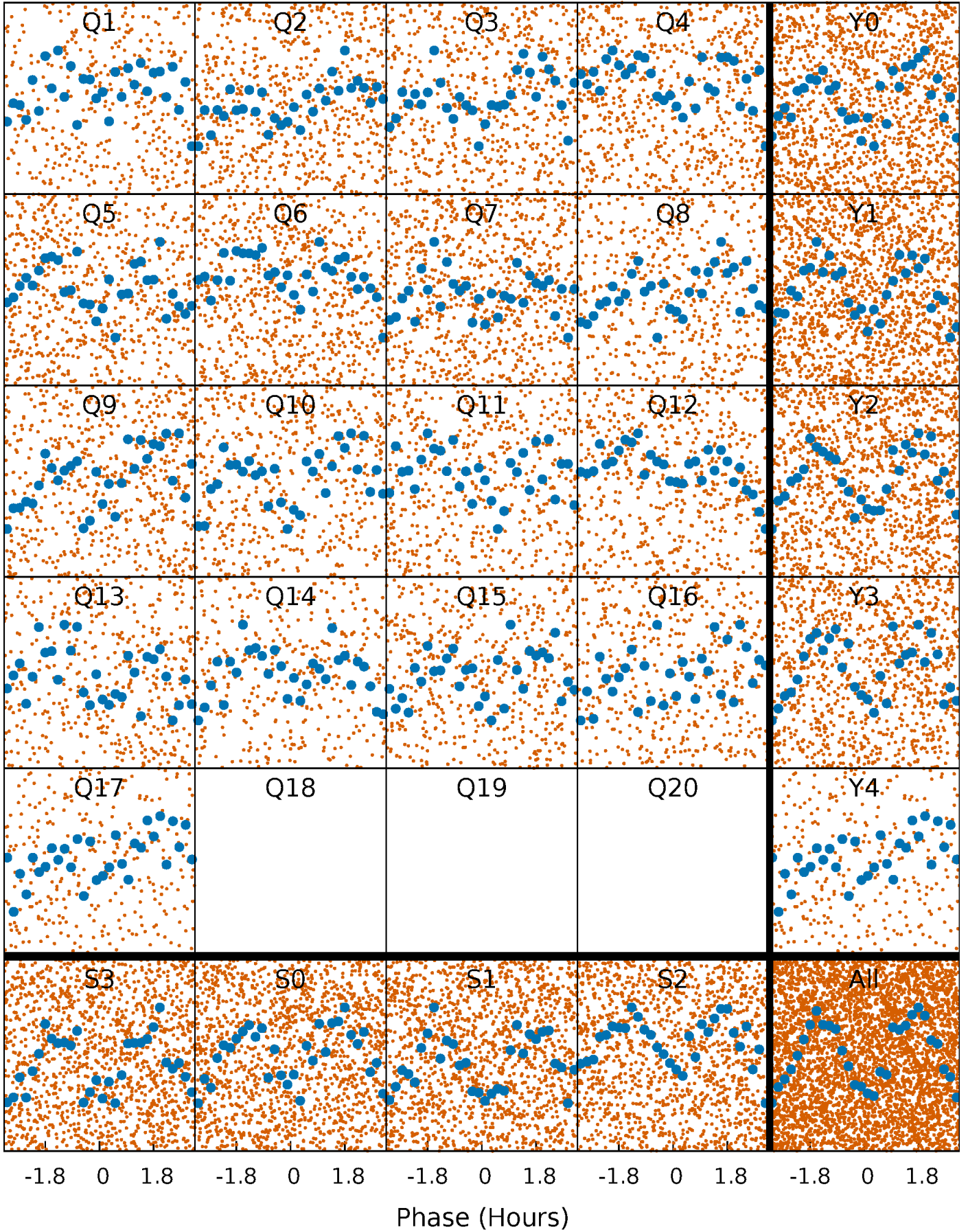


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



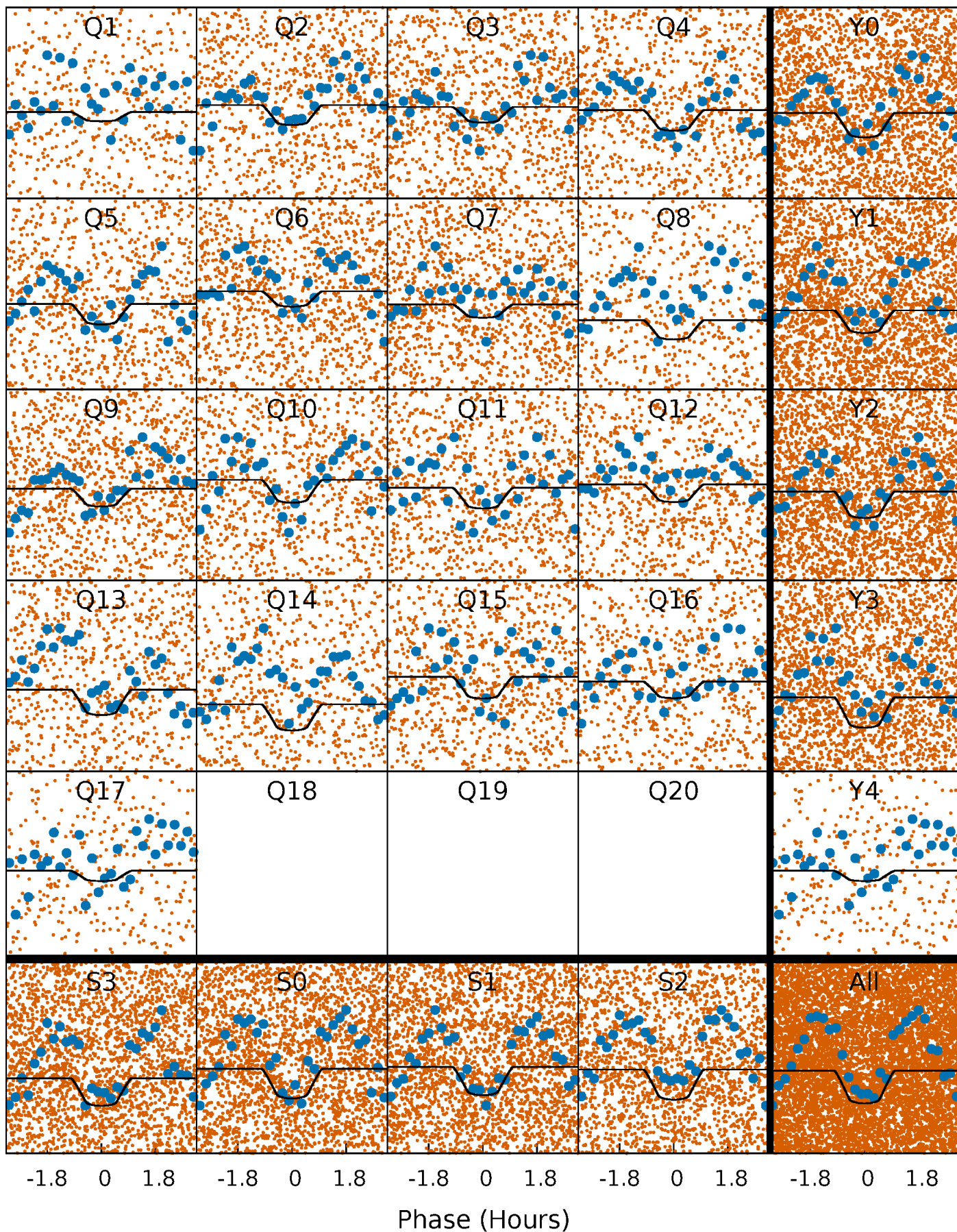
PDC Quarter-Phased Transit Curves

TCE 005702637-01 P= 0.523486 Days $T_0=132.015658$ (BKJD)



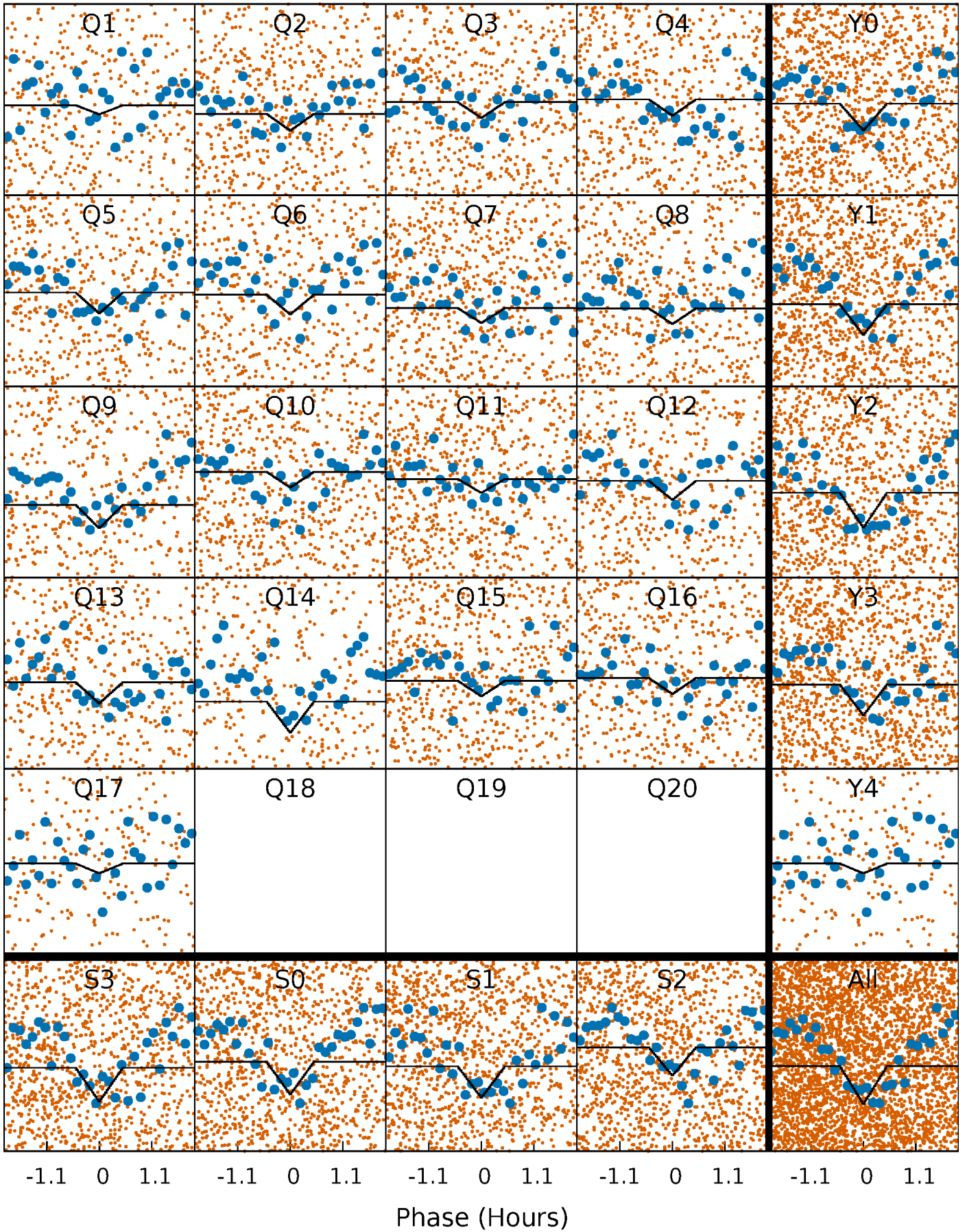
DV Quarter-Phased Transit Curves

TCE 005702637-01 P= 0.523486 Days $T_0=132.015658$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

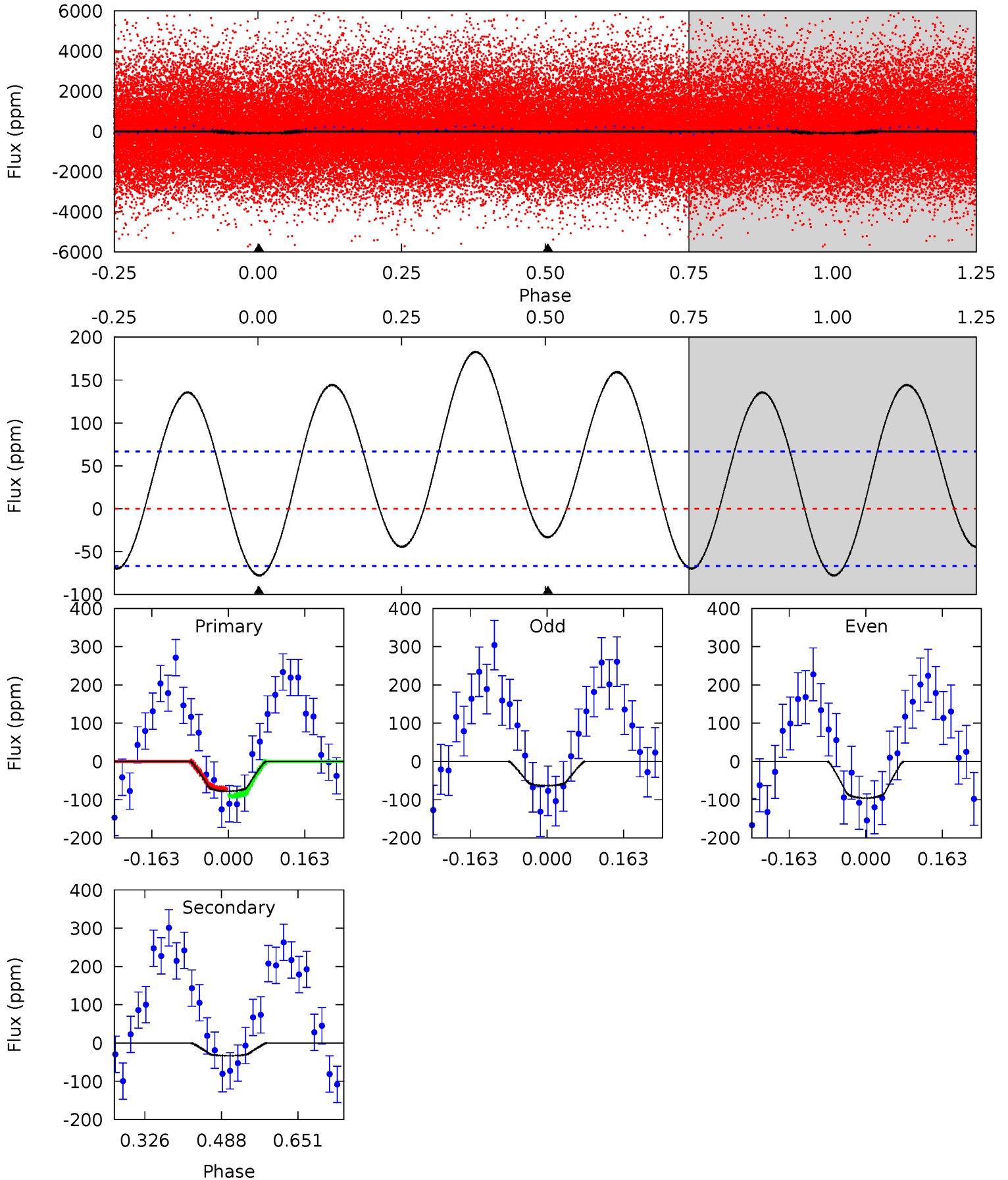
TCE 005702637-01 P= 0.523486 Days $T_0=132.013188$ (BKJD)



DV Model-Shift Uniqueness Test

005702637-01, P = 0.523486 Days, E = 131.492172 Days

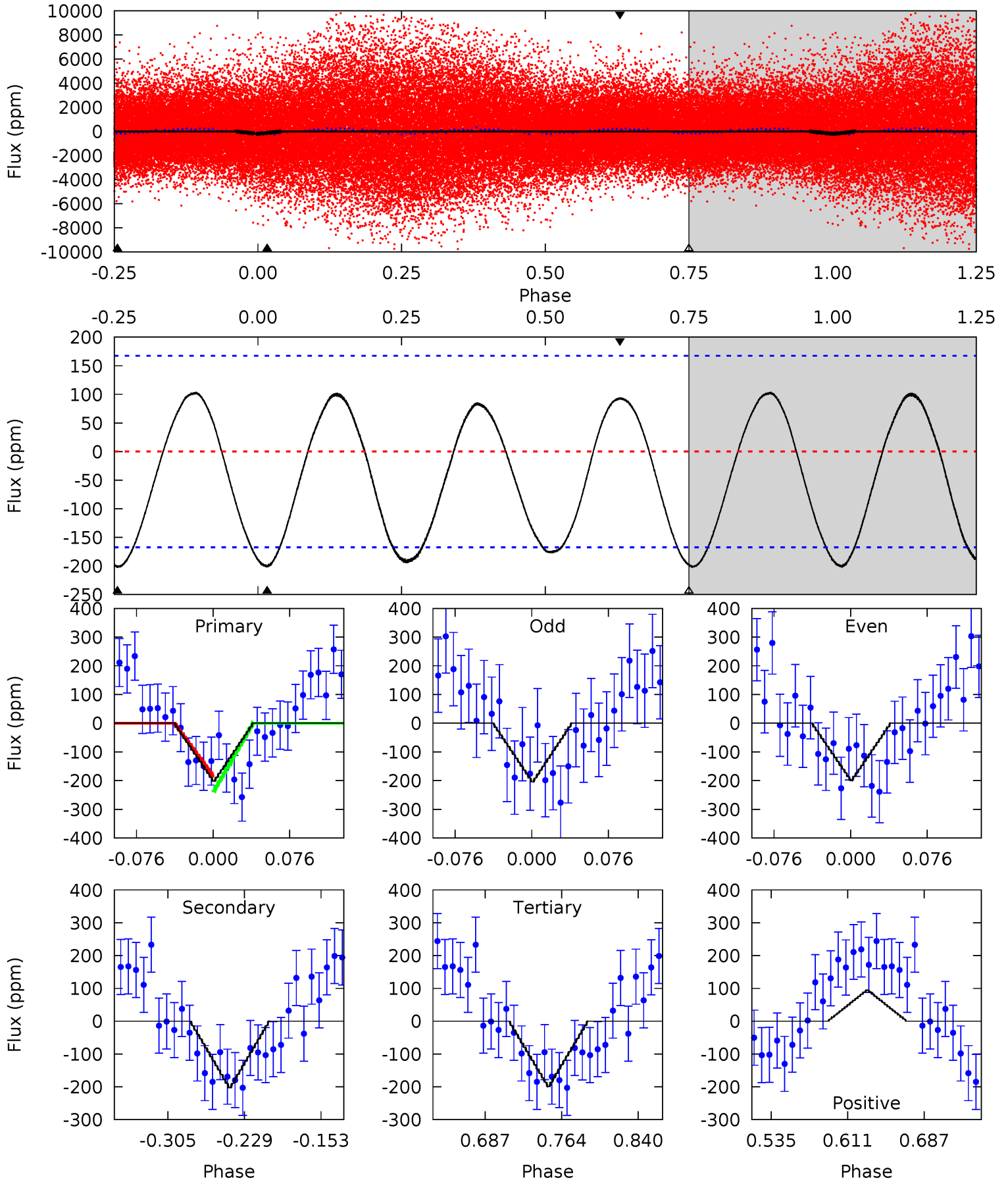
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.21	2.23	0	0	4.46	1.40	3.68	5.21	5.21	2.23	2.23	1.09	0.39	0.70	0.62



Alt Model-Shift Uniqueness Test

005702637-01, P = 0.523486 Days, E = 131.489702 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.58	5.61	5.50	2.61	4.62	1.77	2.76	0.08	2.97	0.11	2.99	0.07	0.72	0.34	0.68



Stellar Parameters For KIC 005702637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7057^{+166}_{-270}	$4.251^{+0.070}_{-0.210}$	$0.000^{+0.200}_{-0.350}$	$1.482^{+0.501}_{-0.215}$	$1.426^{+0.216}_{-0.195}$	$0.617^{+0.239}_{-0.328}$
	+2%/-4%	+2%/-5%	+inf%/-inf%	+34%/-15%	+15%/-14%	+39%/-53%
Source	PHO1	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 005702637-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-33 ± 15	$2.04^{+0.55}_{-0.42}$	4500^{+343}_{-247}	4415^{+838}_{-1015}	$0.818^{+0.737}_{-0.402}$
Alt.	-203 ± 36	$2.40^{+0.49}_{-0.43}$	4498^{+318}_{-239}	6881^{+865}_{-726}	$3.937^{+1.998}_{-1.377}$

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 $A_{obs} \gg 1.0$

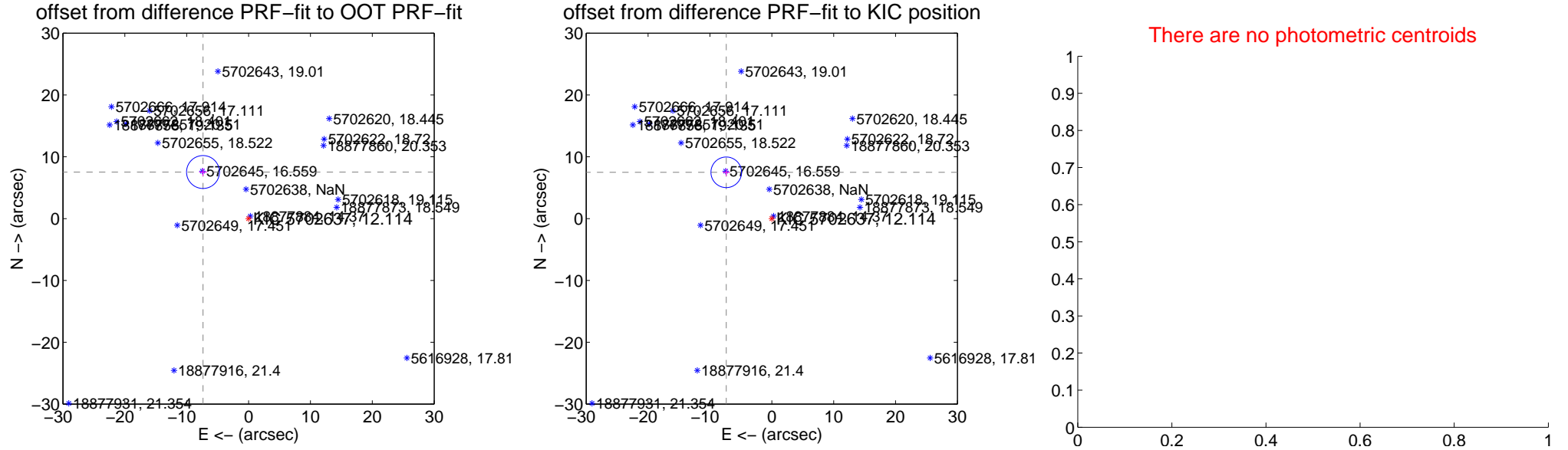
DV Centroid Data

Supplemental centroid analysis for 005702637-01. Kepler magnitude: 12.11. Transit SNR 11.82

There are 7 quarters with good PRF difference image offsets

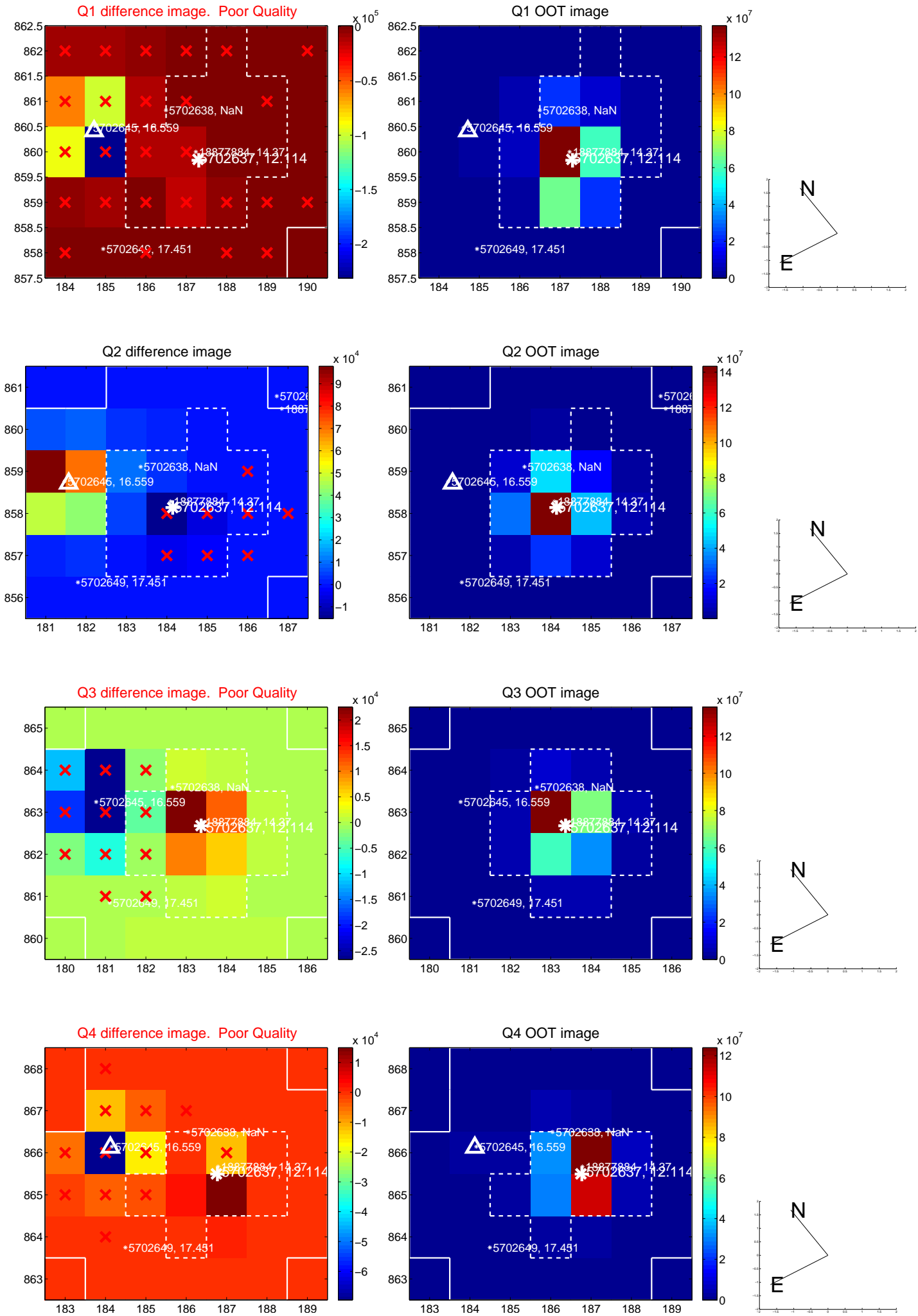
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.536 ± 0.887	11.88	7.364 ± 0.621	7.535 ± 0.638
PRF-fit source offset from KIC position	10.505 ± 0.825	12.74	7.365 ± 0.579	7.490 ± 0.593
photometric centroid source offset	—	—	—	—

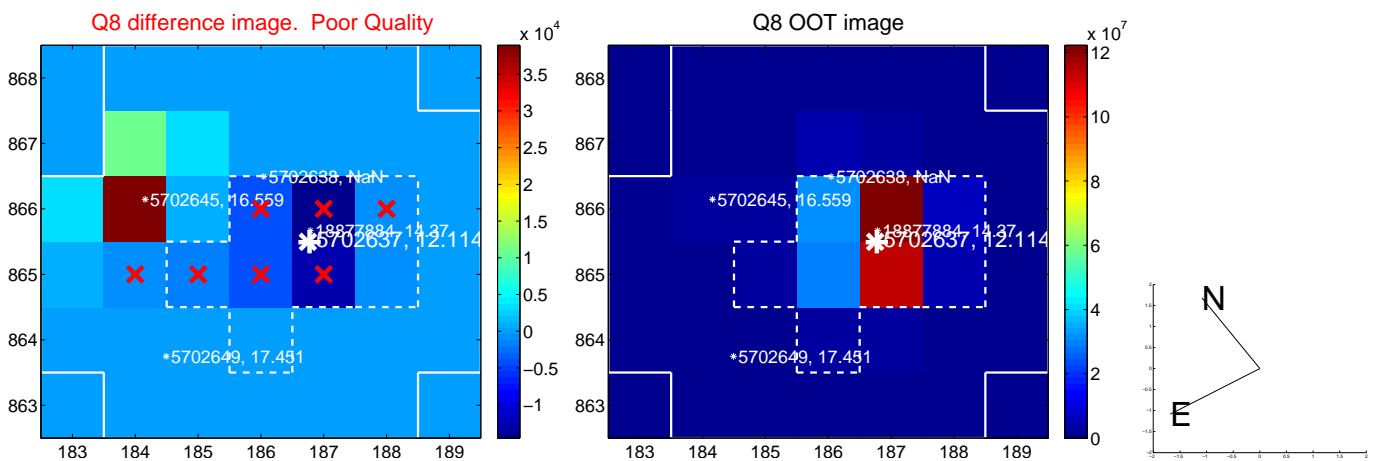
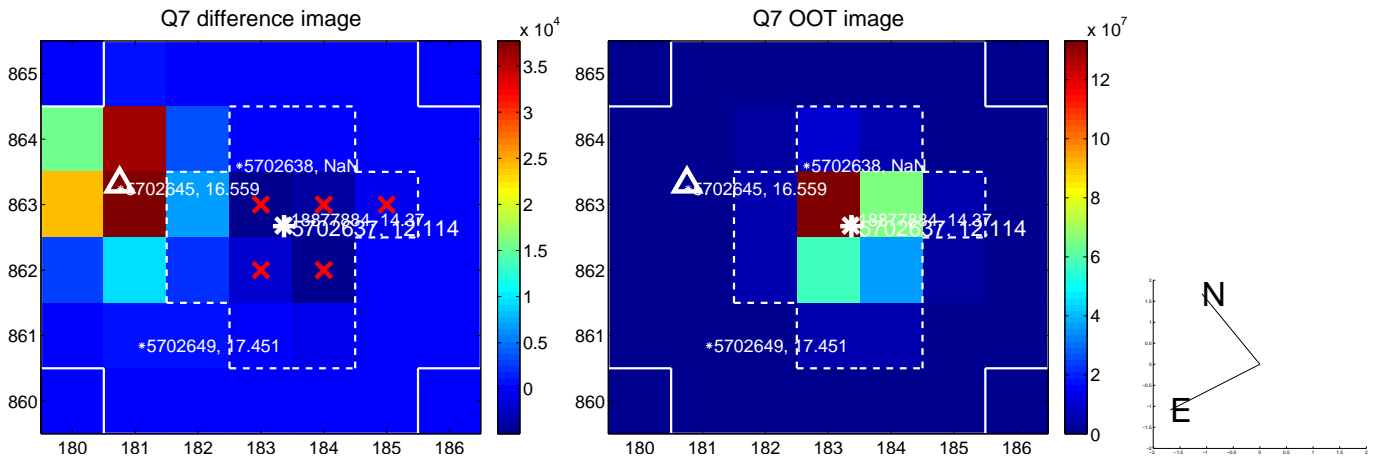
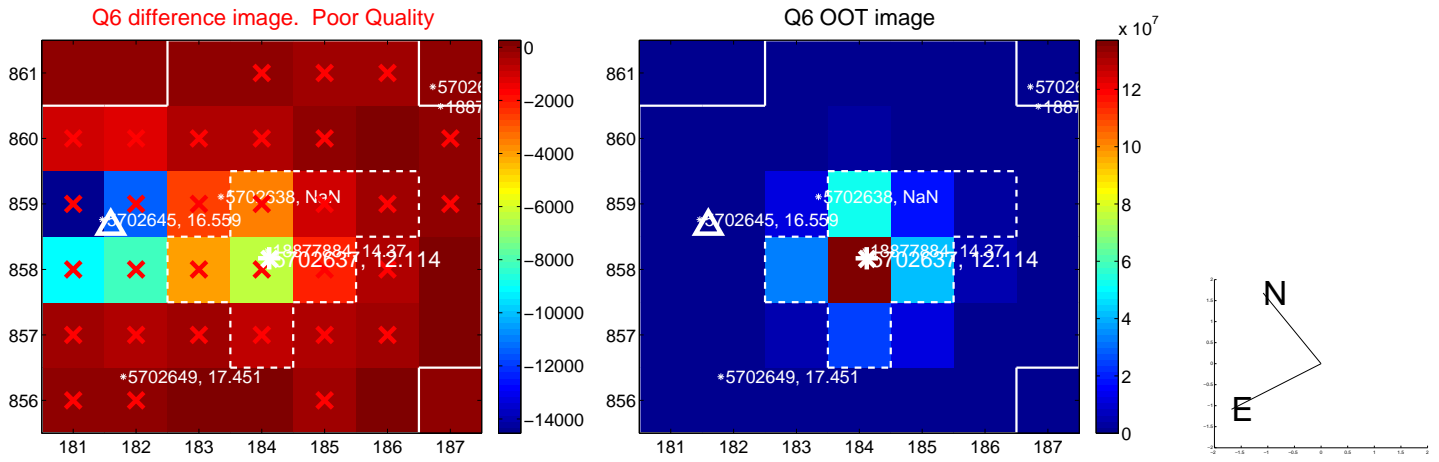
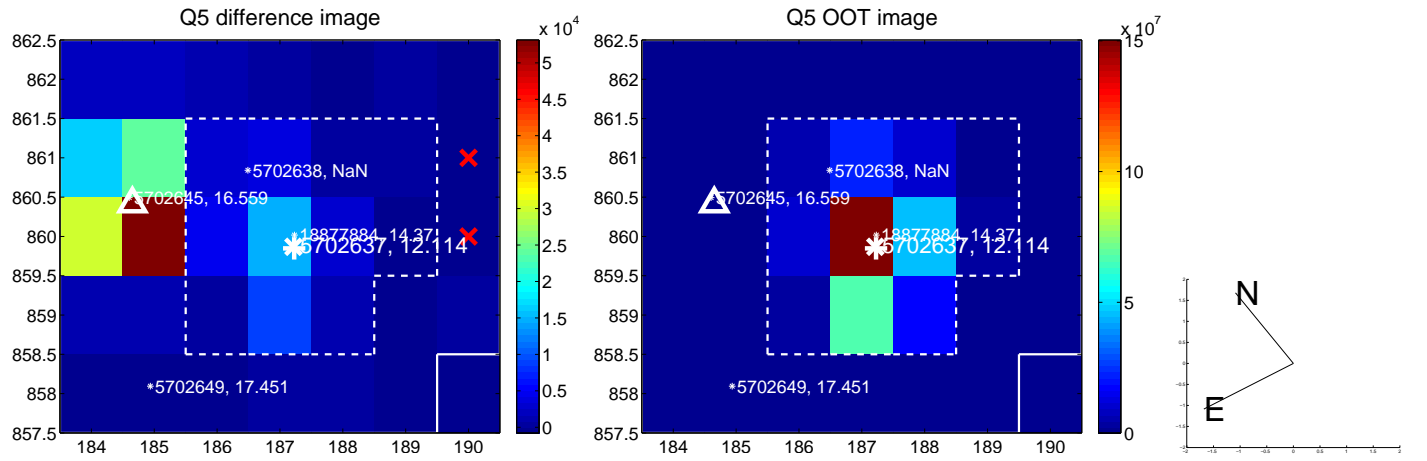


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

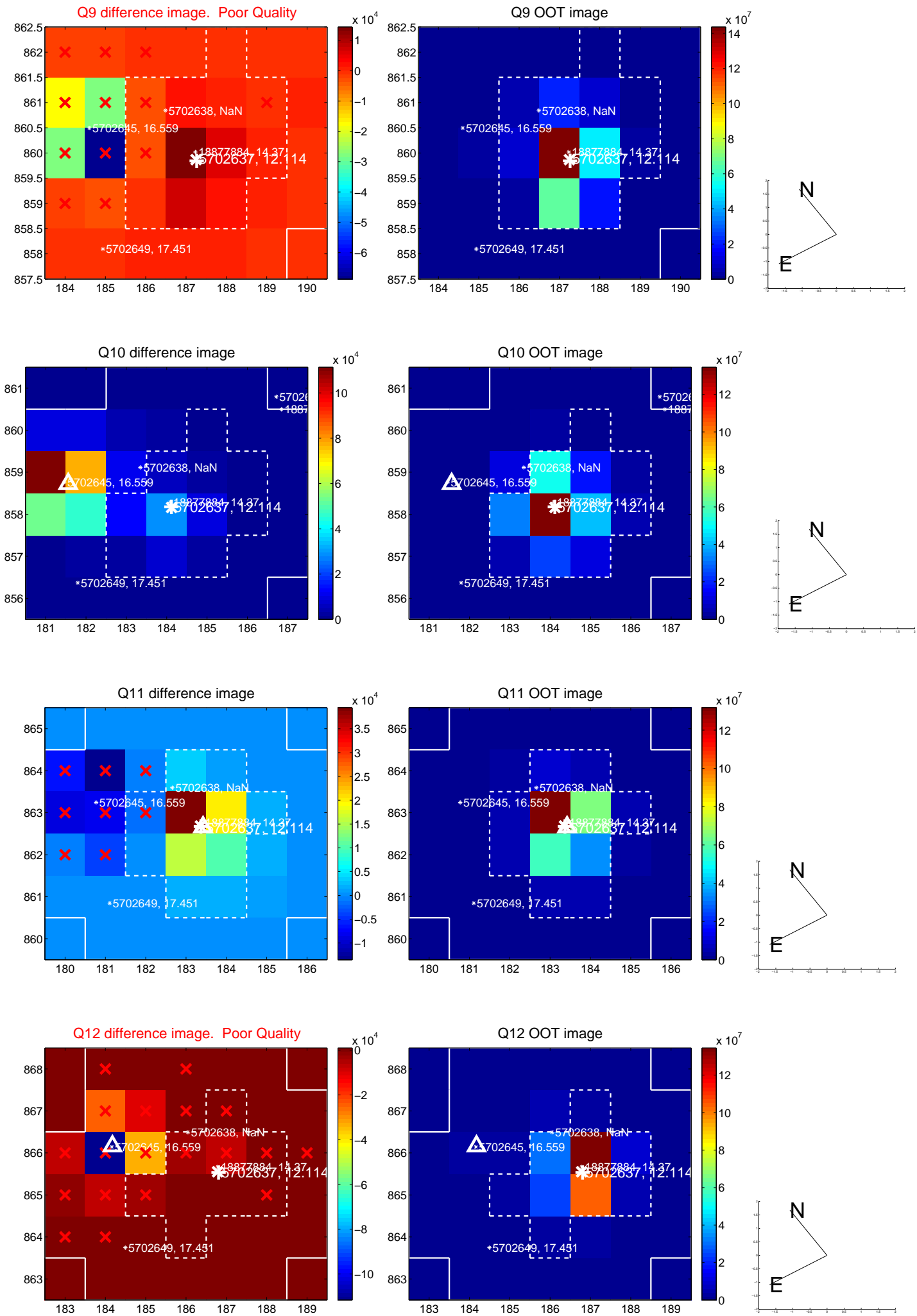
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



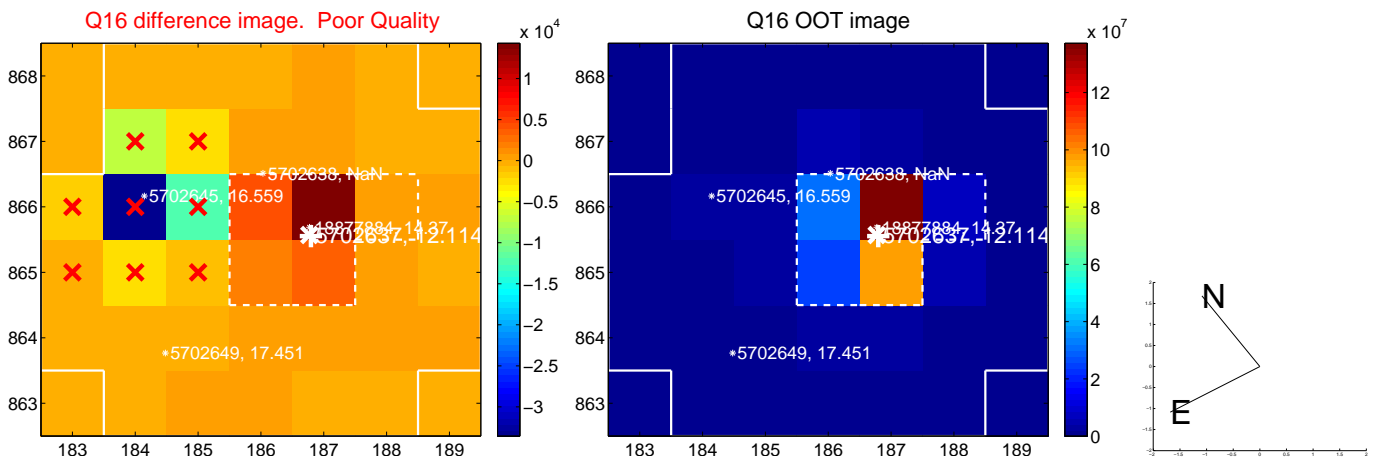
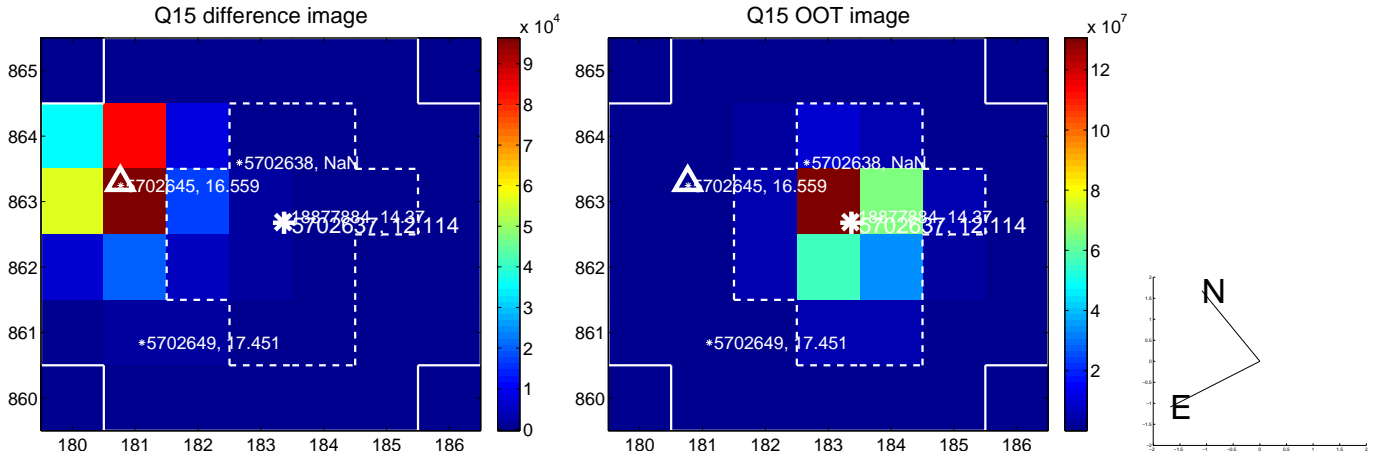
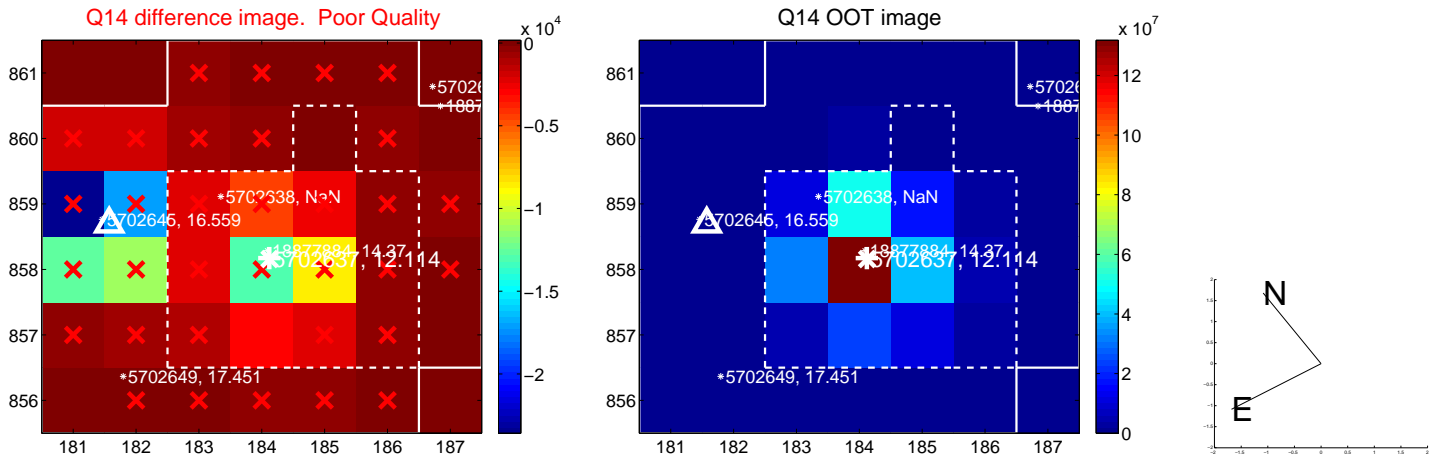
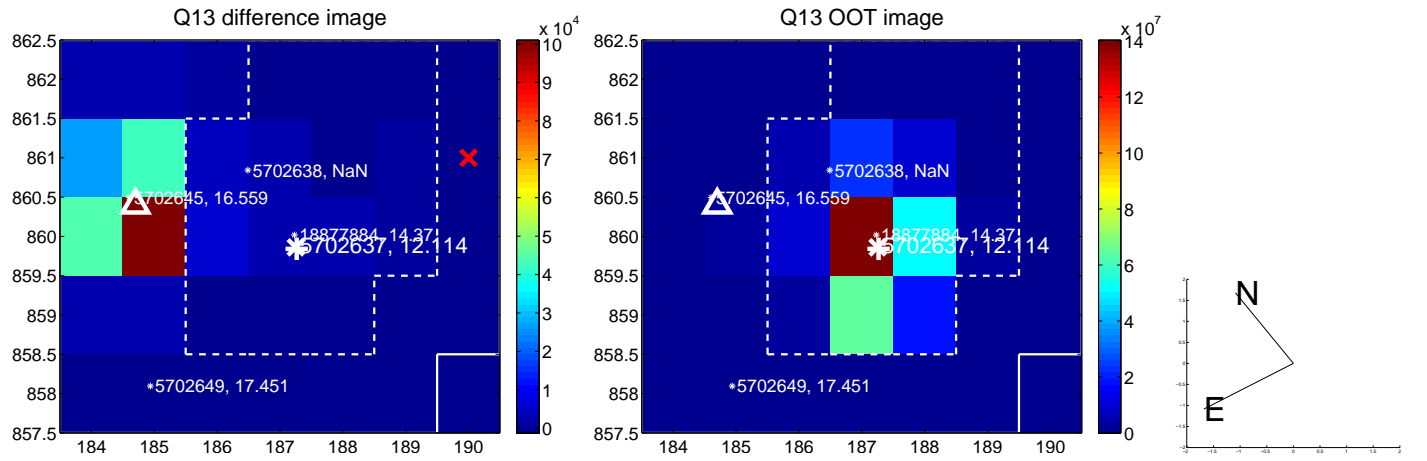
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



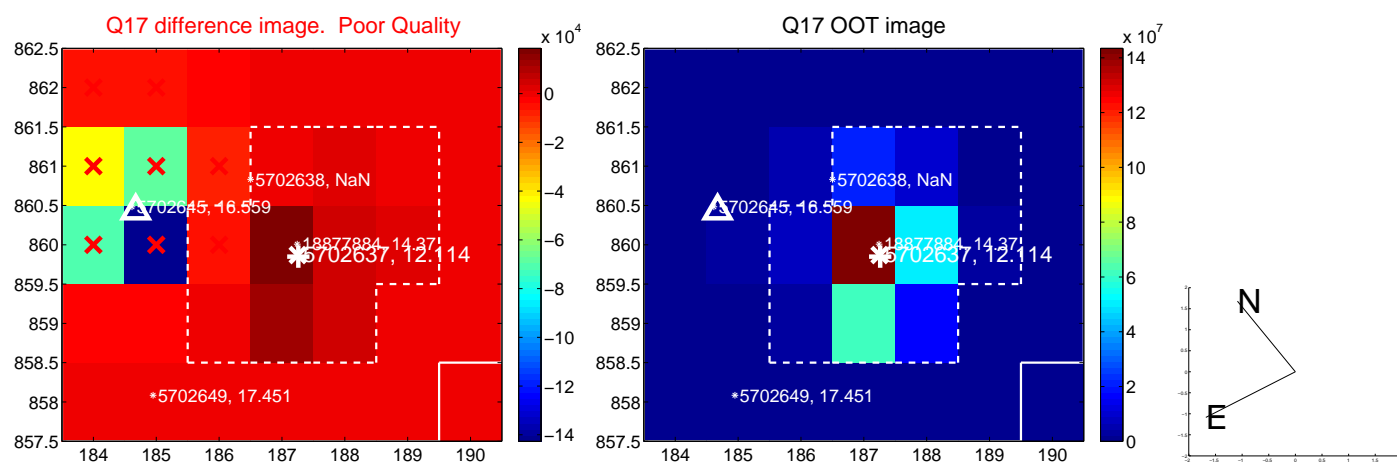
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

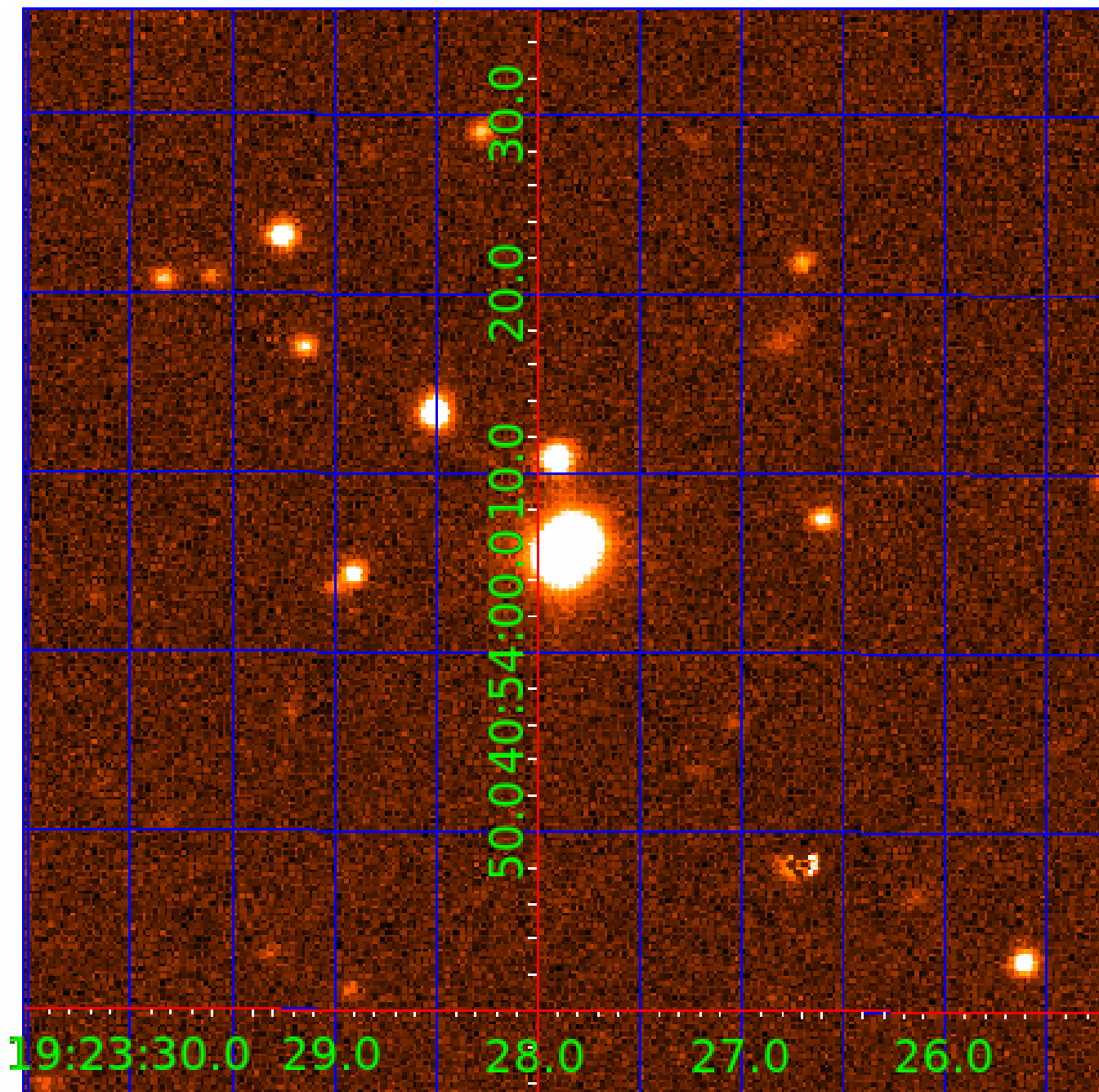


folded centroid time series figure for this object.



UKIRT Image

Declination



KIC 005702637

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})
005702637-01	OBS	No	0.523486	132.015658	130.1	1.589	17.6	11.8	1.48	7057	1.97	23808.59
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Robovetter Results

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005702637-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_UNCERTAIN
005702637-03	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005702637-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_NOFITS

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 005702637-02

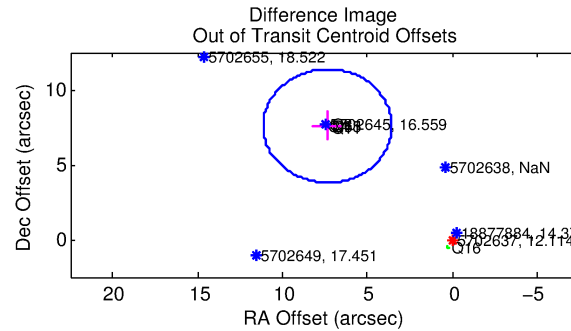
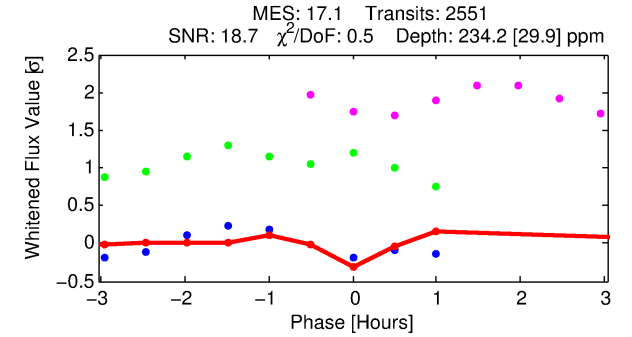
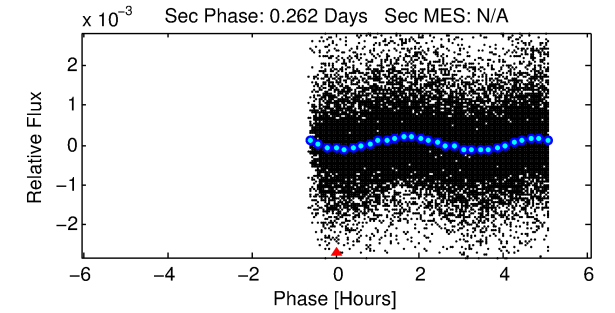
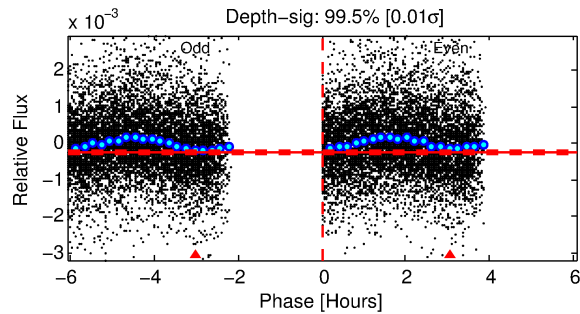
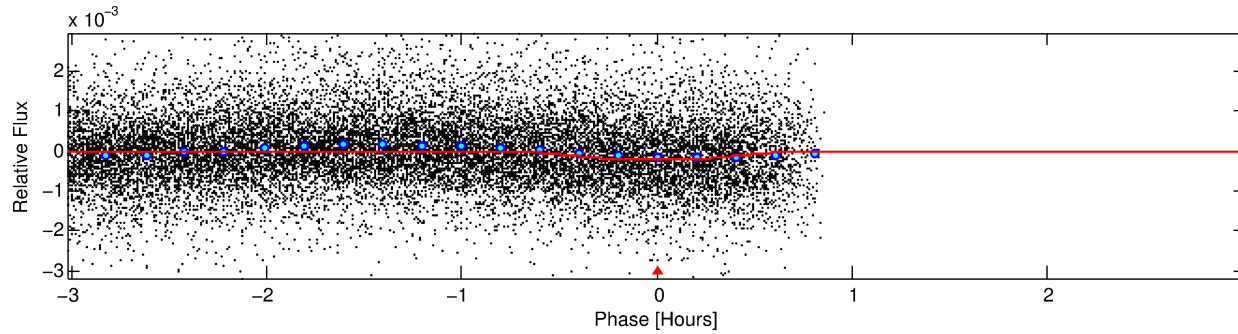
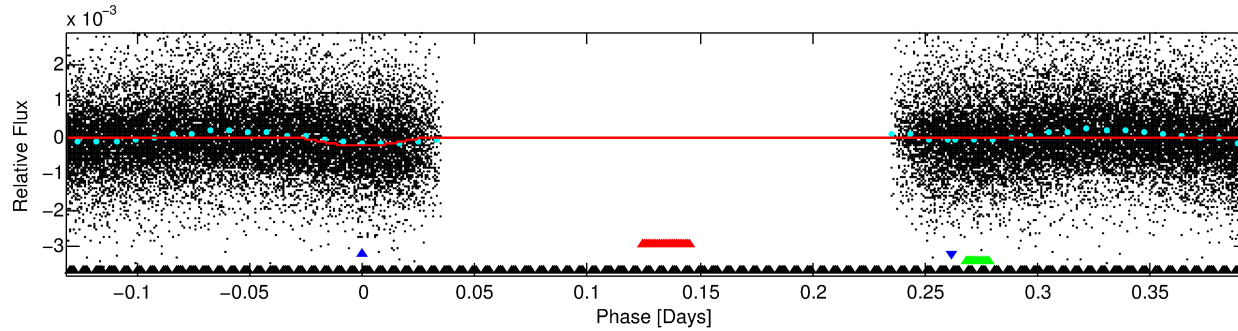
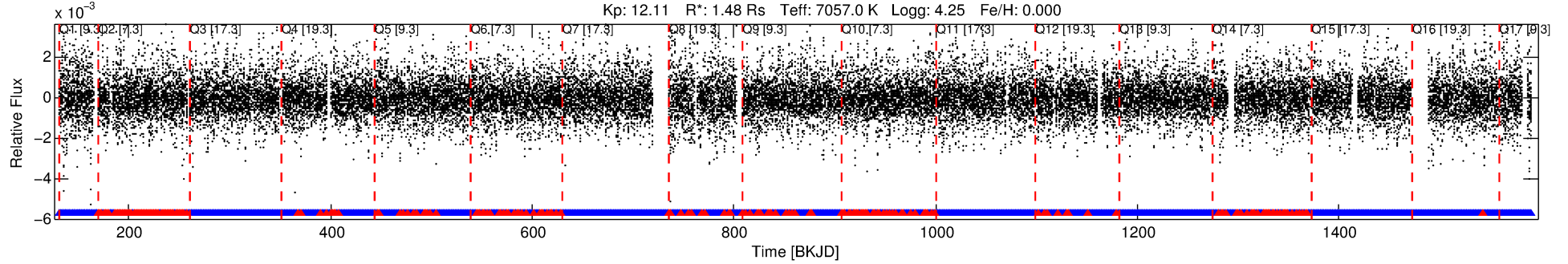
No Significant Match Found

DV One-Page Summary

KIC: 5702637 Candidate: 2 of 4 Period: 0.523 d

KOI: K04217 Corr: No Ephemeris Match

Kp: 12.11 R*: 1.48 Rs Teff: 7057.0 K Logg: 4.25 Fe/H: 0.000



DV Fit Results:

Period = 0.52349 [0.00001] d
Epoch = 131.8700 [0.0005] BKJD
Rp/R* = 0.0164 [0.0029]
a/R* = 2.10 [1.66]
b = 0.90 [0.22]
Seff = 23808.13 [10048.34]
Teq = 3167 [334] K
Rp = 2.65 [1.01] Re
a = 0.0143 [0.0040] AU

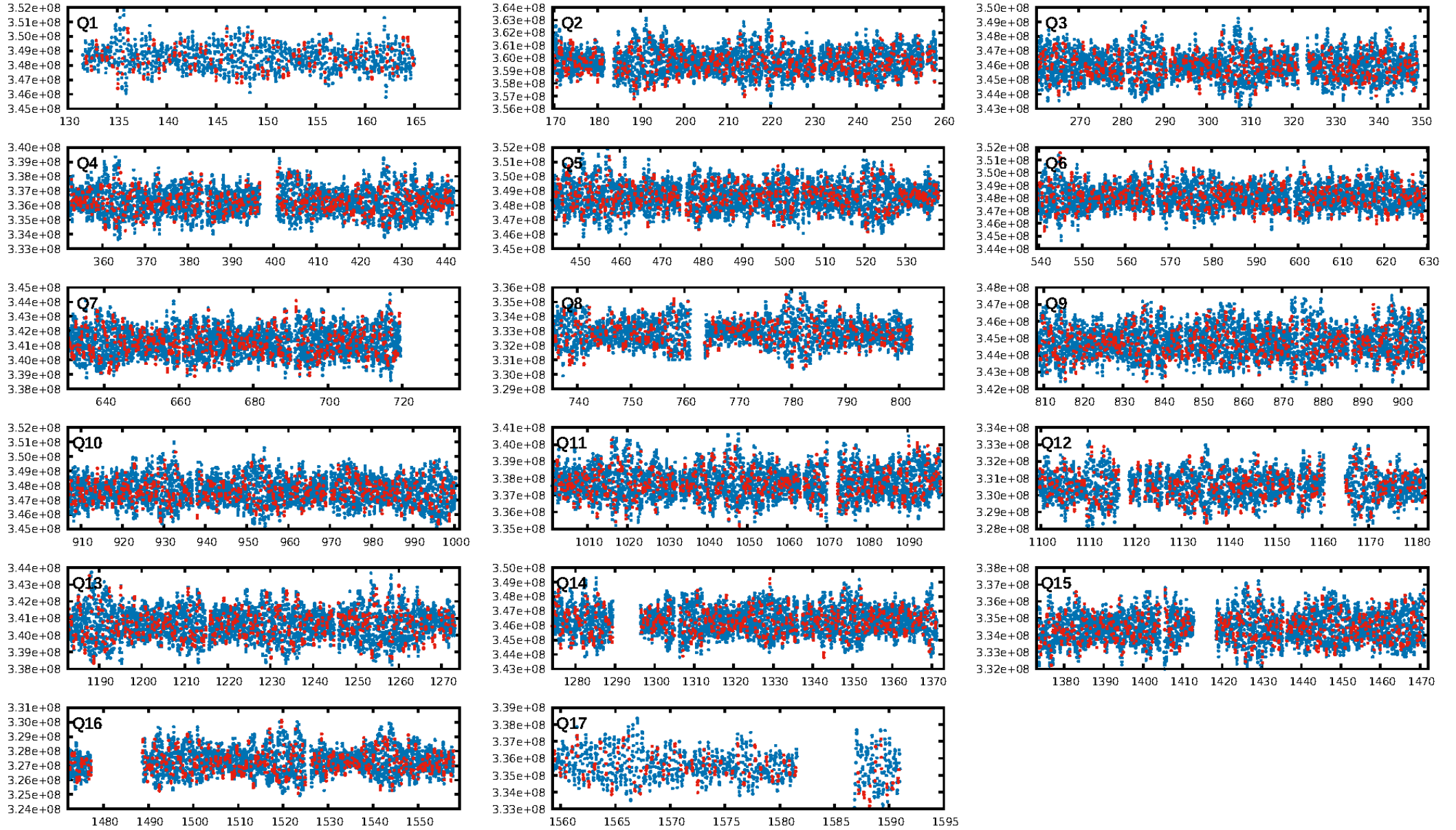
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [5.21σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.90 [2185/2436]
GhostDiagnostic-chr: 0.7146
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 10.553 arcsec [8.35σ]
KicOffset-rm: 10.527 arcsec [7.01σ]
OotOffset-st: 1/3/2/1 [7]
KicOffset-st: 1/3/2/1 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.00 [0/17]

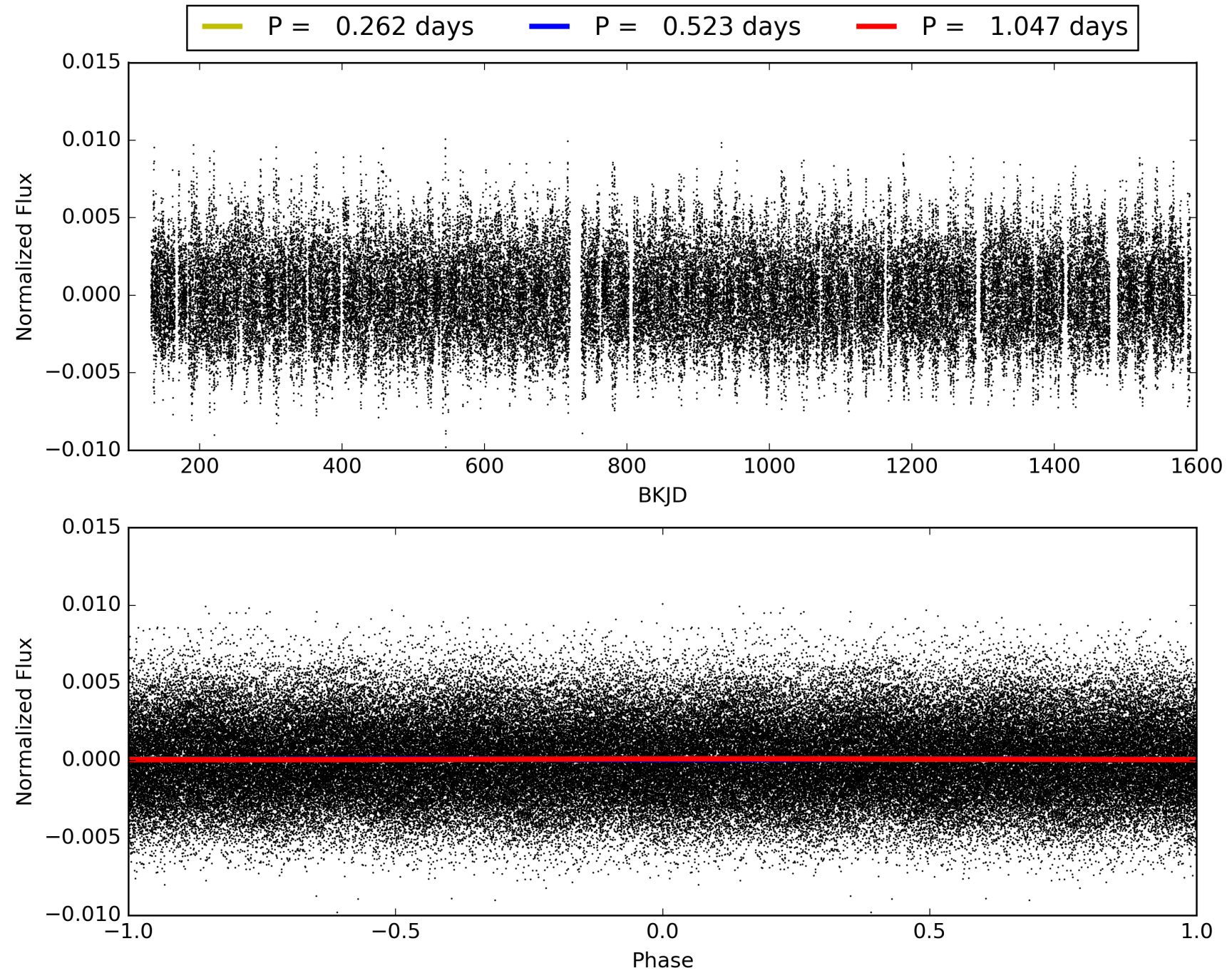
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:30:38 Z

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

TCE 005702637-02, PDC Light Curves

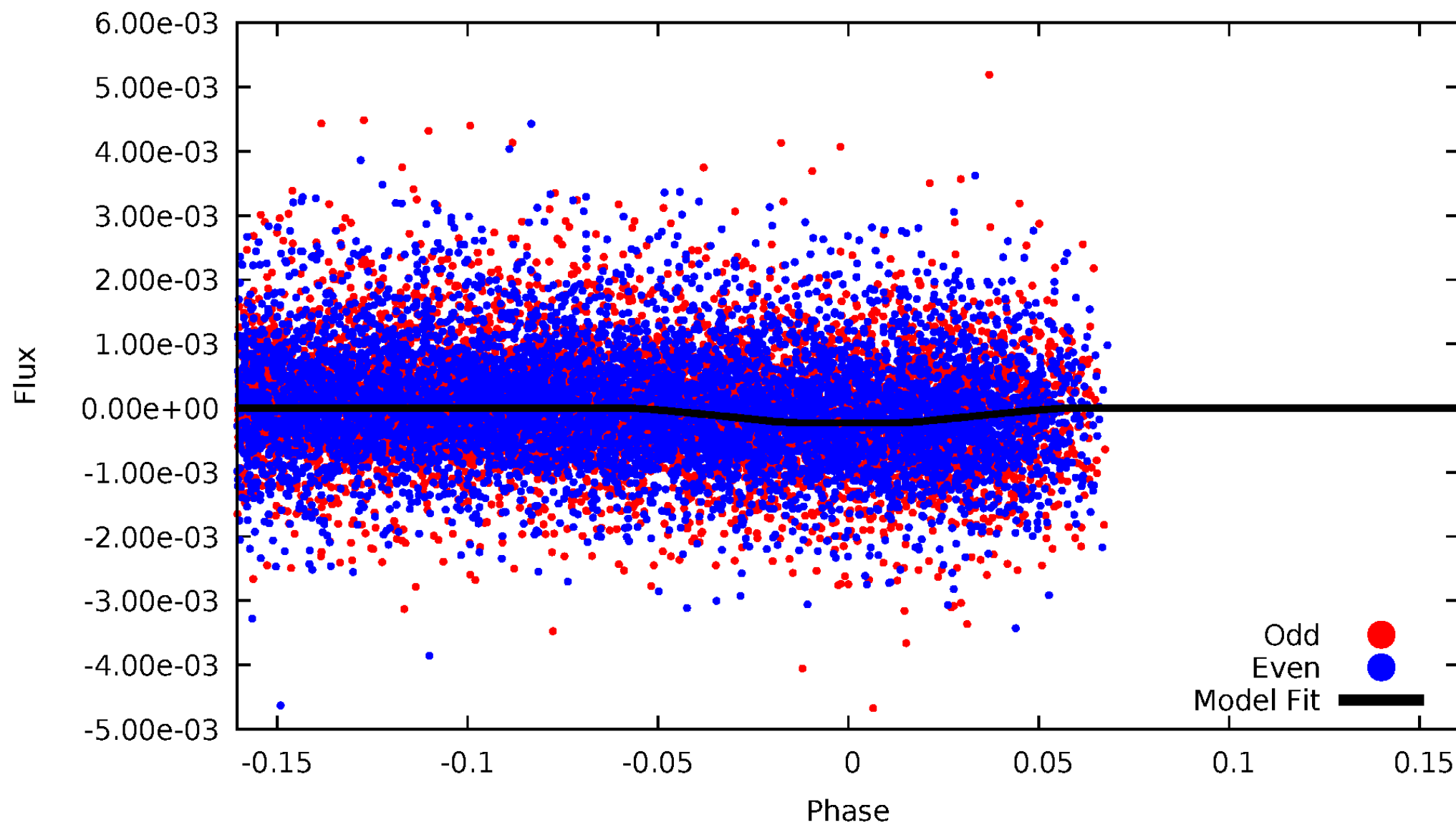


TCE 005702637-02



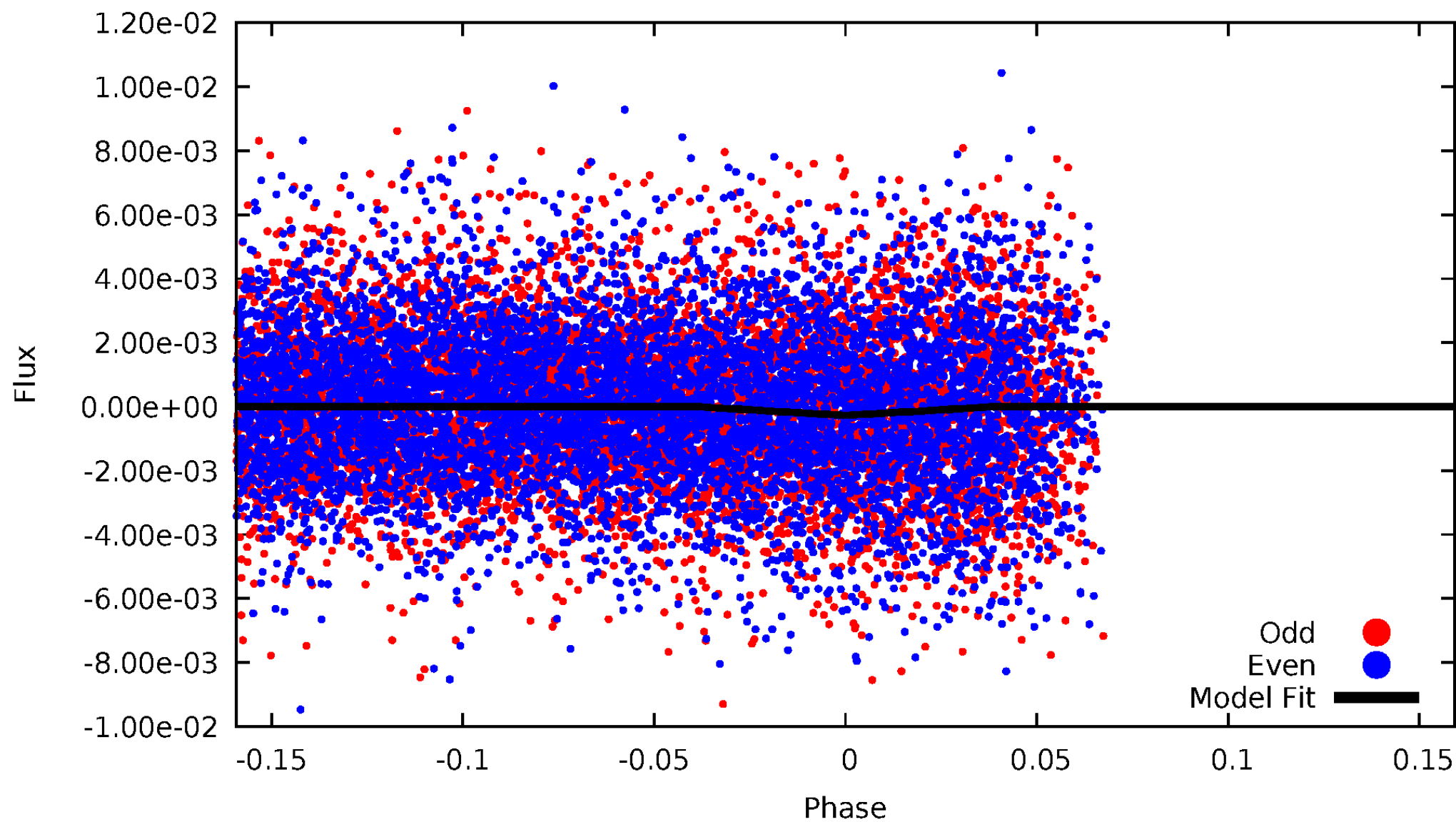
DV Odd/Even

TCE 005702637-02



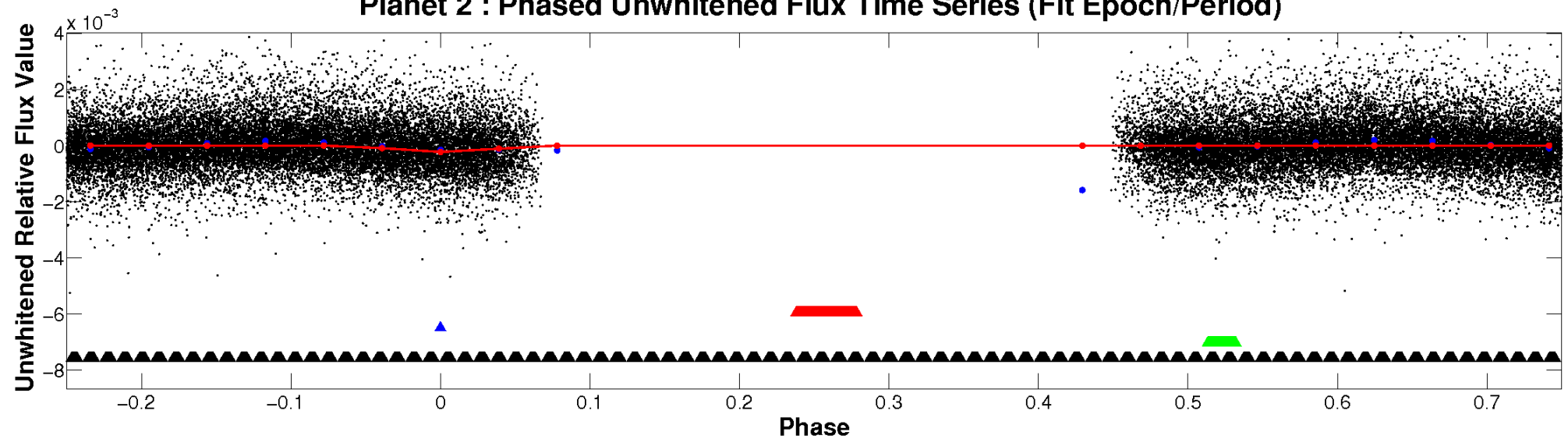
ALT Odd/Even

TCE 005702637-02

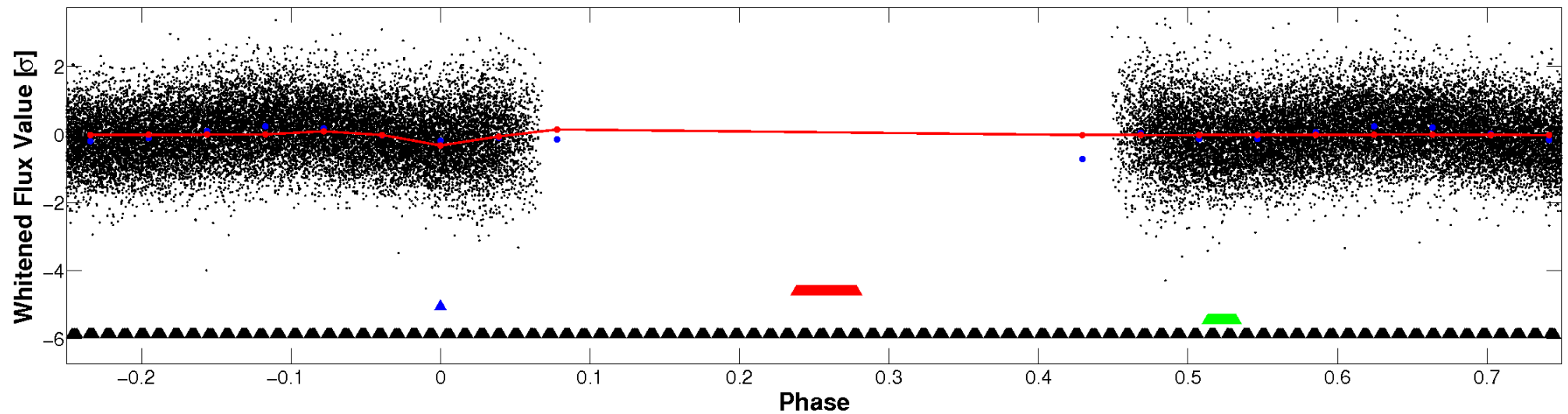


Non-Whitened Vs. Whitened Light Curve

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

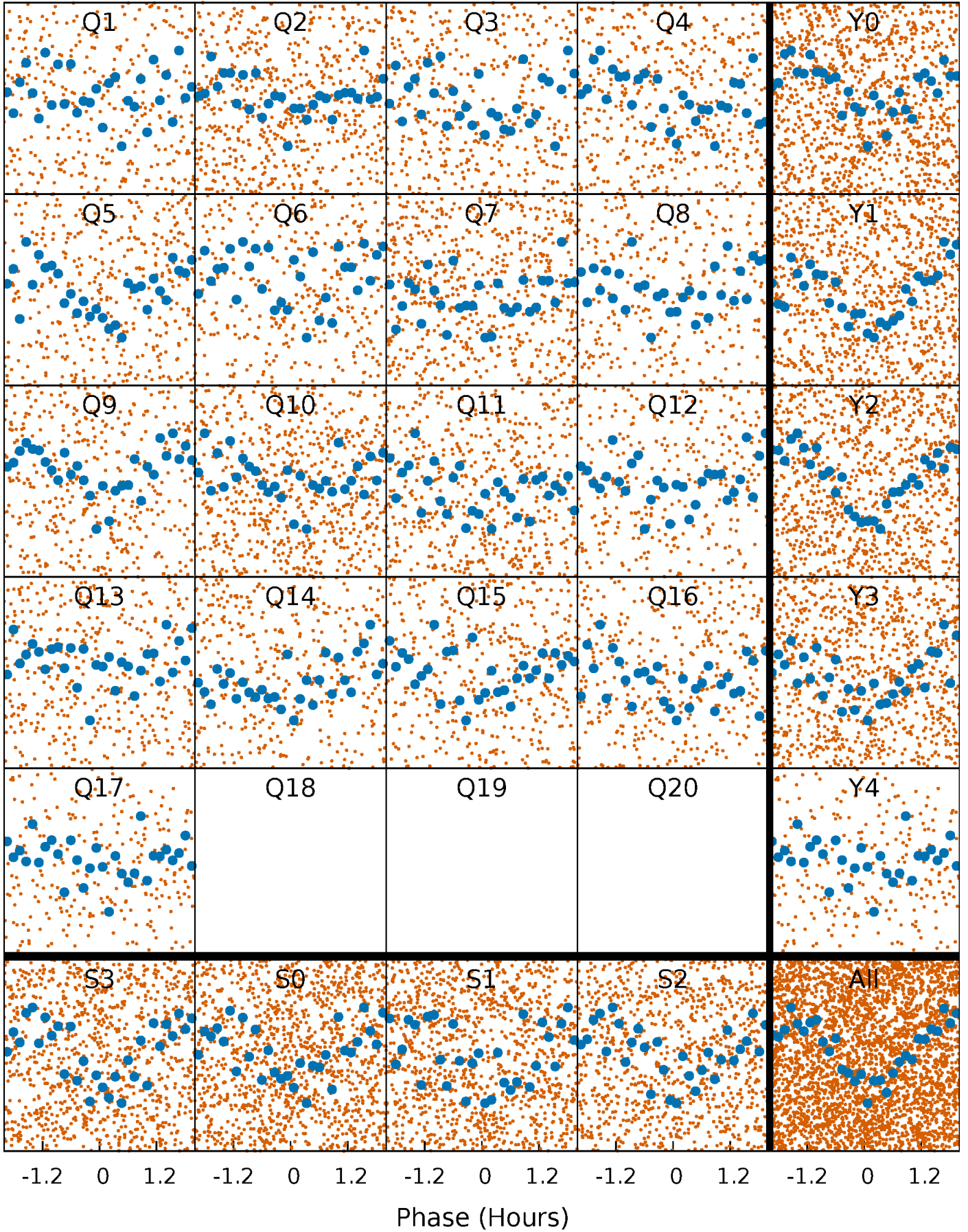


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



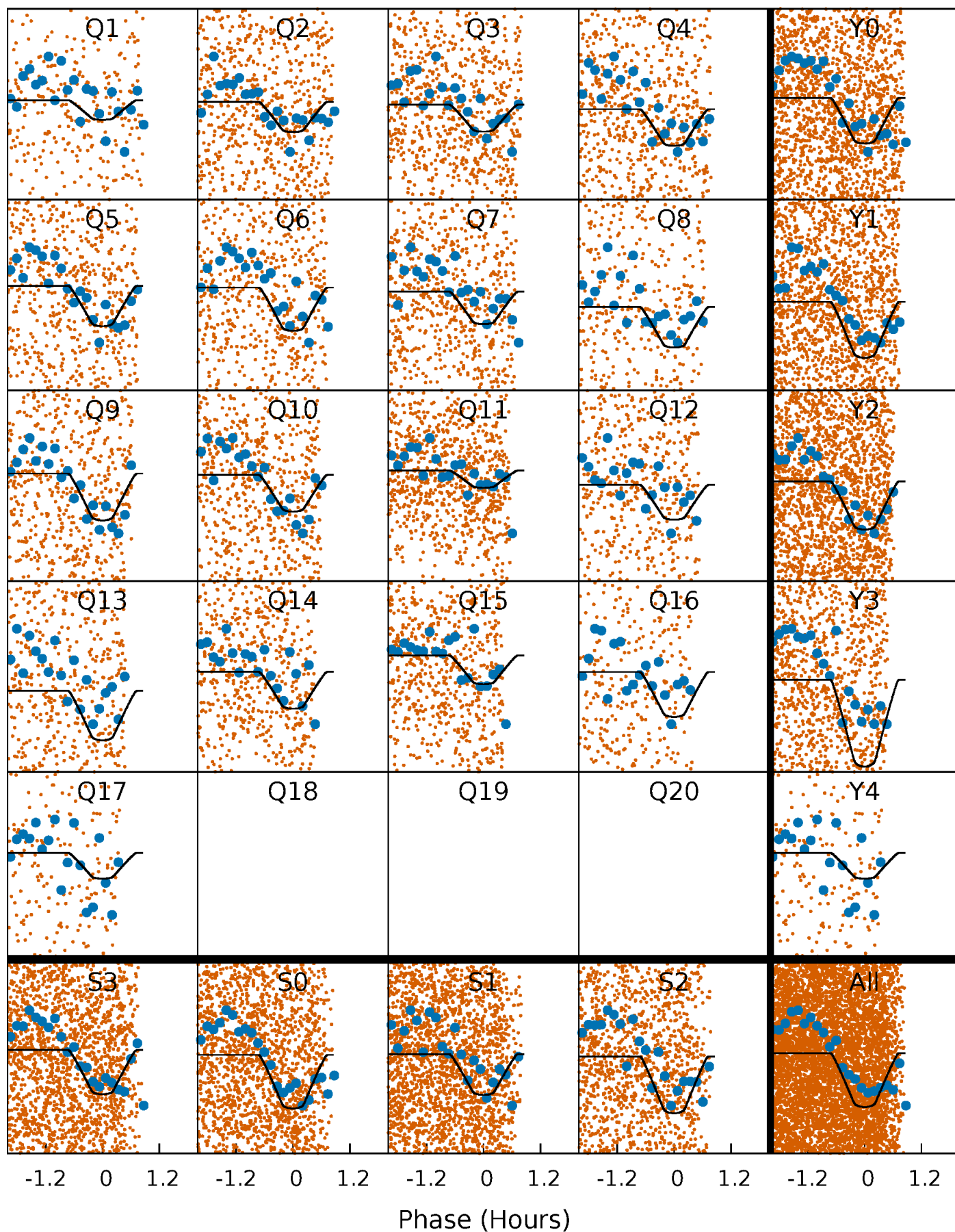
PDC Quarter-Phased Transit Curves

TCE 005702637-02 P= 0.523493 Days $T_0=131.869965$ (BKJD)



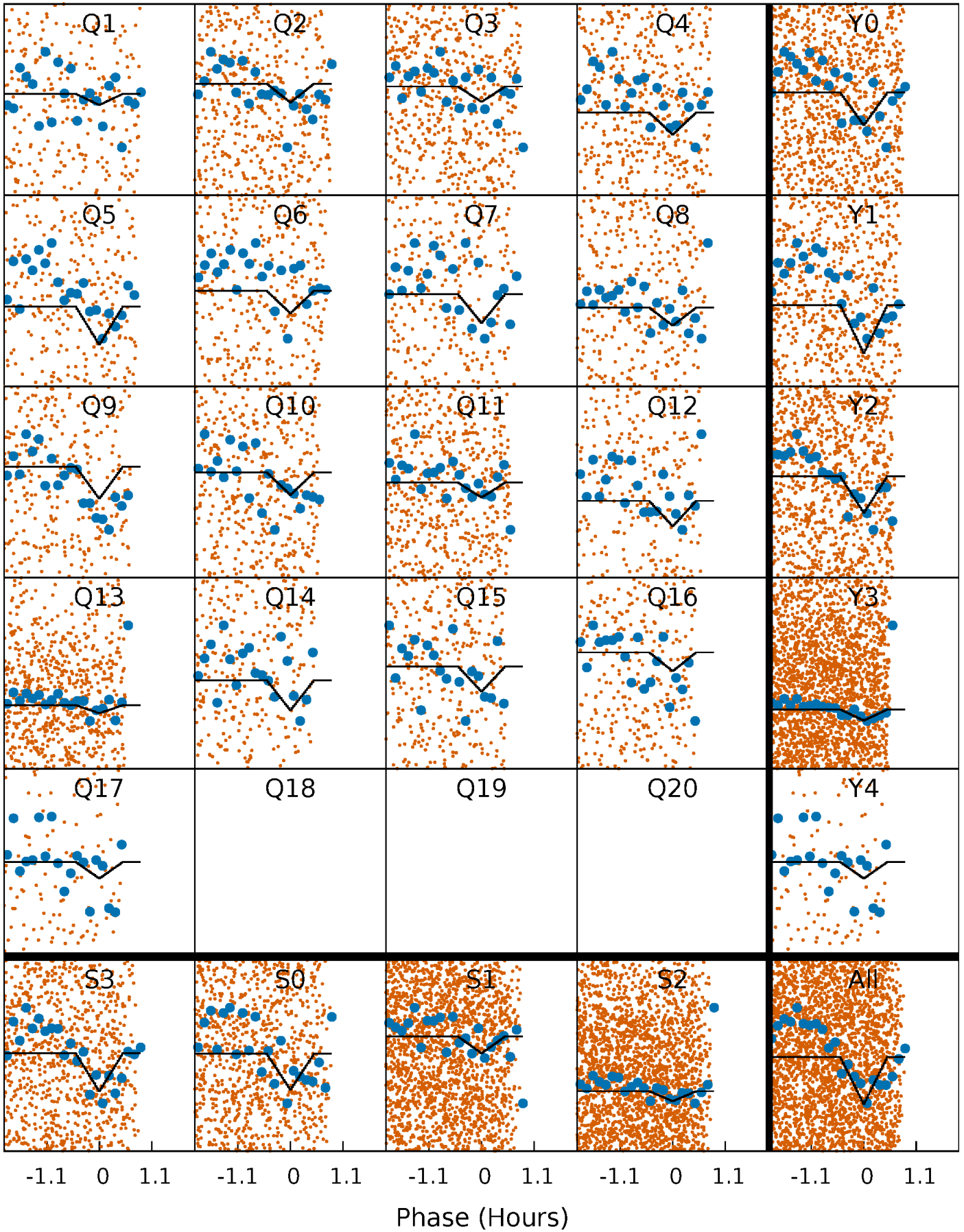
DV Quarter-Phased Transit Curves

TCE 005702637-02 P= 0.523493 Days $T_0=131.869965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

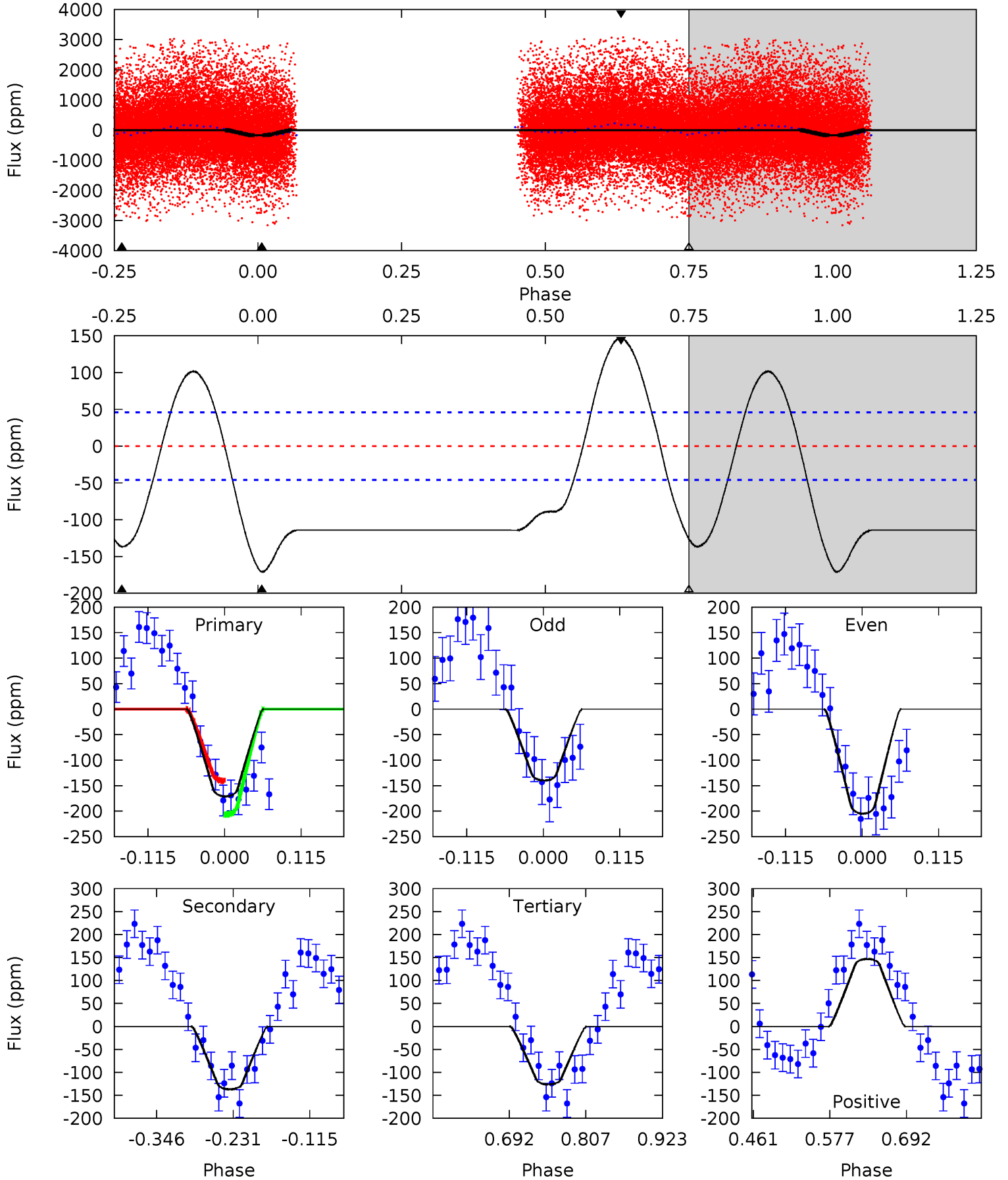
TCE 005702637-02 P= 0.523492 Days $T_0=131.869917$ (BKJD)



DV Model-Shift Uniqueness Test

005702637-02, P = 0.523493 Days, E = 131.346472 Days

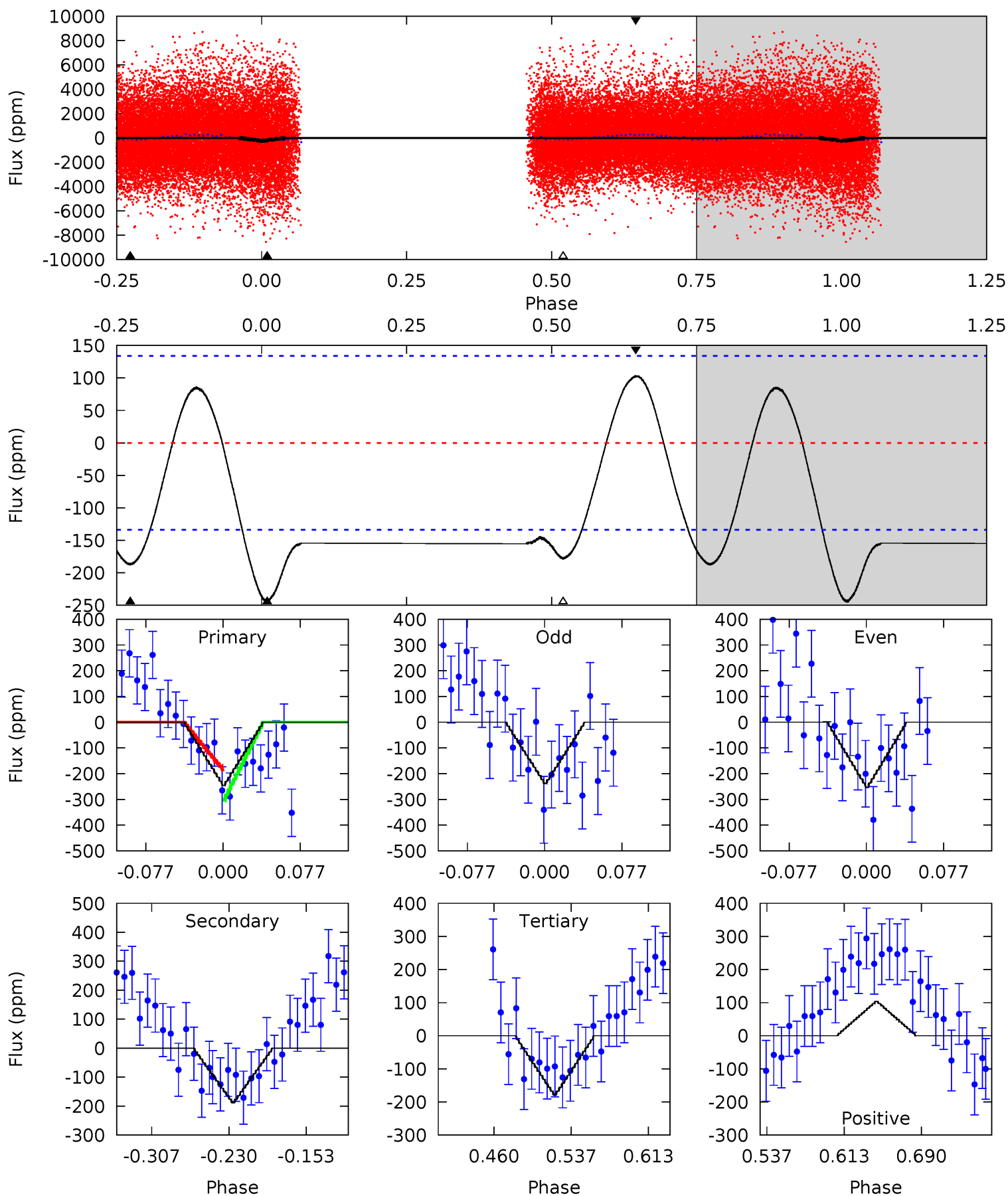
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	13.5	12.5	14.5	4.53	1.57	9.07	4.42	2.39	1.04	-0.99	3.24	0.77	0.46	3.15



Alt Model-Shift Uniqueness Test

005702637-02, P = 0.523492 Days, E = 131.346425 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.49	6.51	6.20	3.59	4.62	1.77	3.41	2.30	4.90	0.31	2.92	0.25	0.67	0.30	1.73



Stellar Parameters For KIC 005702637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7057^{+166}_{-270}	$4.251^{+0.070}_{-0.210}$	$0.000^{+0.200}_{-0.350}$	$1.482^{+0.501}_{-0.215}$	$1.426^{+0.216}_{-0.195}$	$0.617^{+0.239}_{-0.328}$
	+2%/-4%	+2%/-5%	+inf%/-inf%	+34%/-15%	+15%/-14%	+39%/-53%
Source	PHO1	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 005702637-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-137 ± 10	$2.78^{+0.62}_{-0.56}$	4497^{+315}_{-240}	5643^{+728}_{-525}	$1.987^{+1.113}_{-0.634}$
Alt.	-189 ± 29	$2.75^{+0.73}_{-0.54}$	4500^{+349}_{-239}	6177^{+777}_{-651}	$2.698^{+1.504}_{-1.017}$

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 $A_{obs} \gg 1.0$

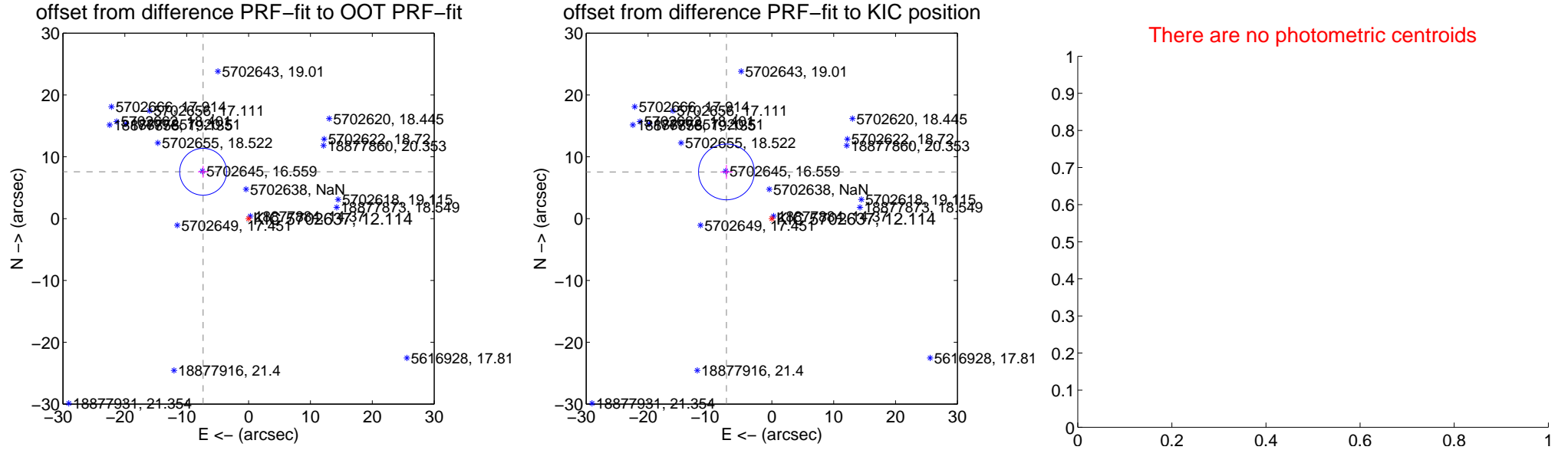
DV Centroid Data

Supplemental centroid analysis for 005702637-02. Kepler magnitude: 12.11. Transit SNR 18.70

There are 3 quarters with good PRF difference image offsets

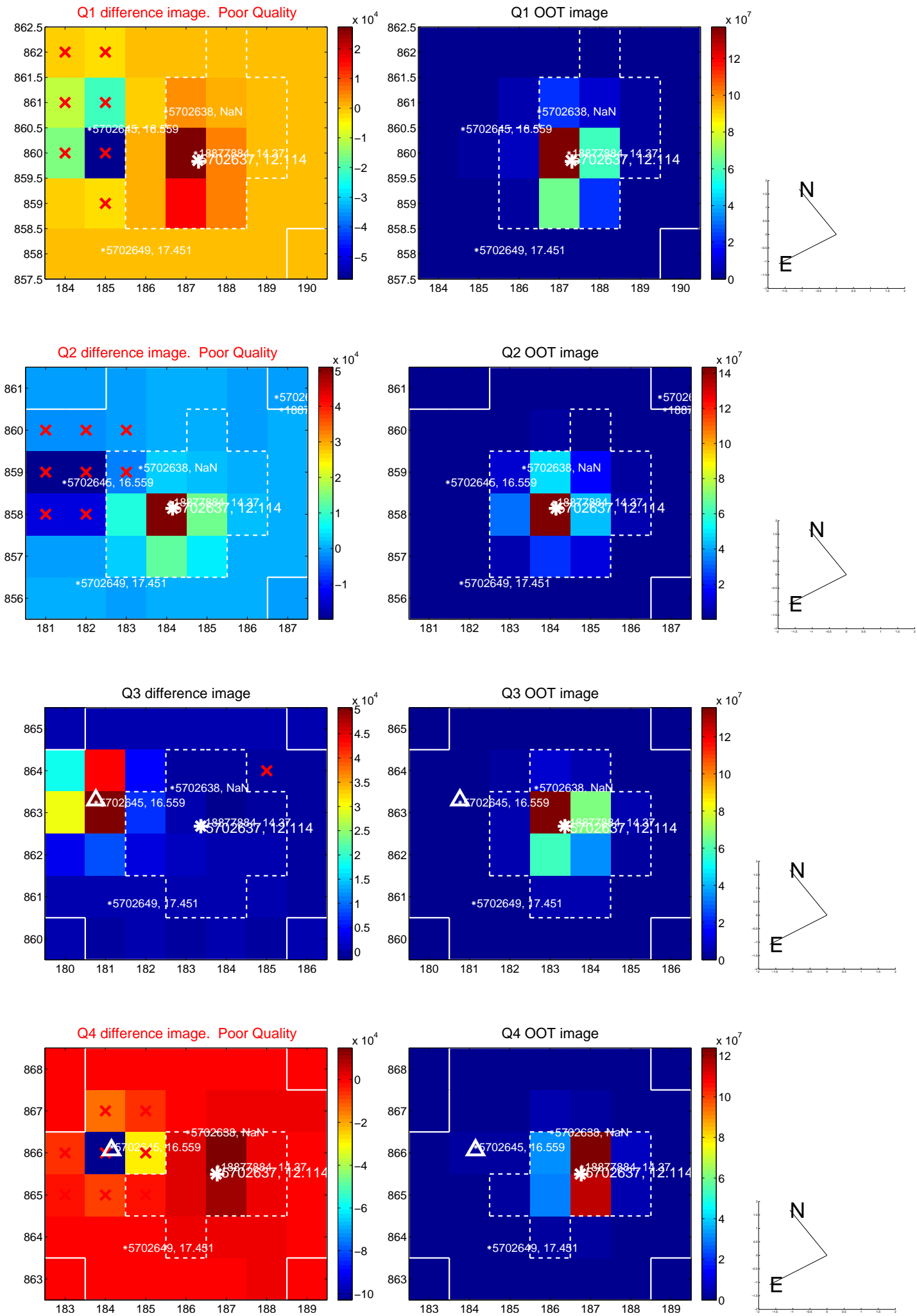
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.553 ± 1.263	8.35	7.345 ± 0.836	7.578 ± 0.952
PRF-fit source offset from KIC position	10.527 ± 1.503	7.01	7.335 ± 0.993	7.551 ± 1.133
photometric centroid source offset	—	—	—	—

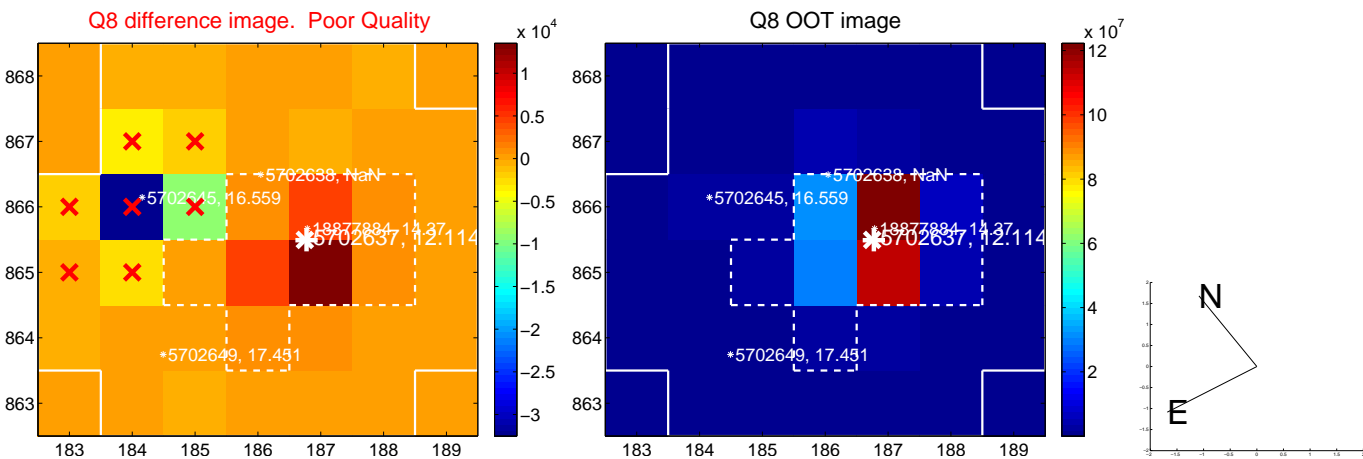
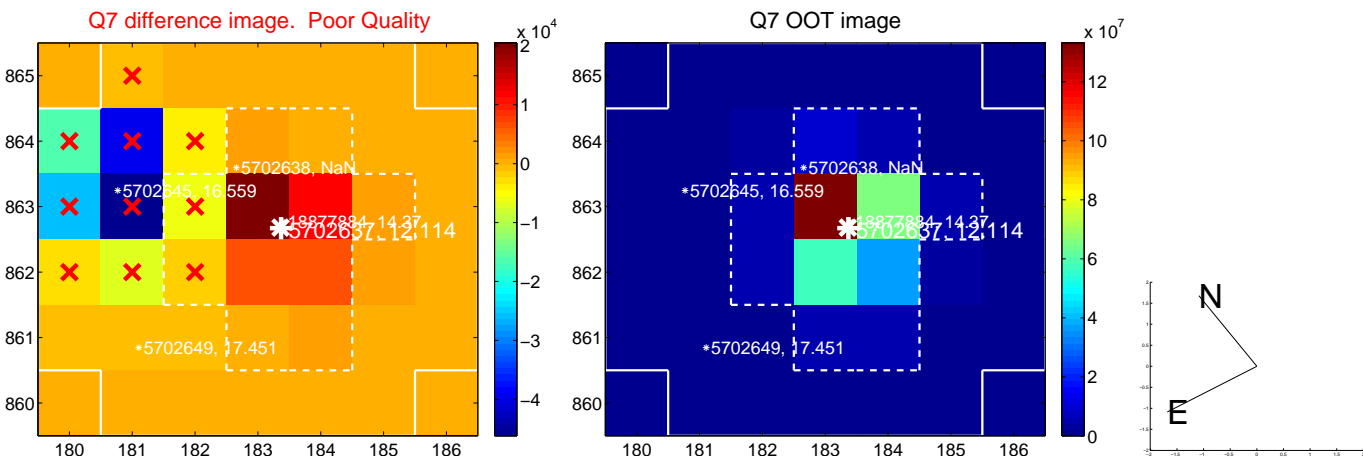
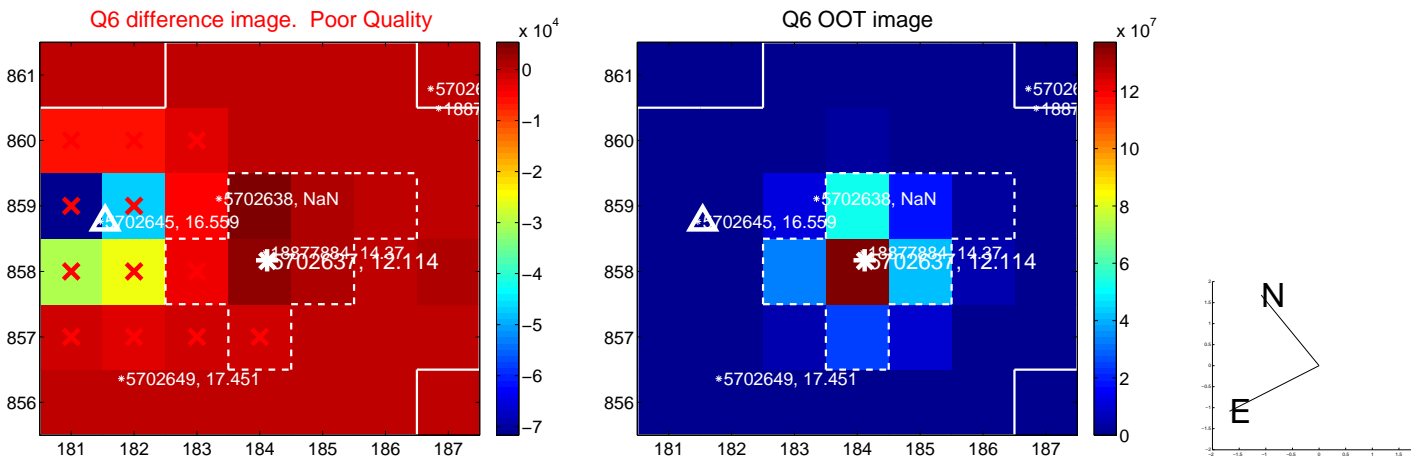
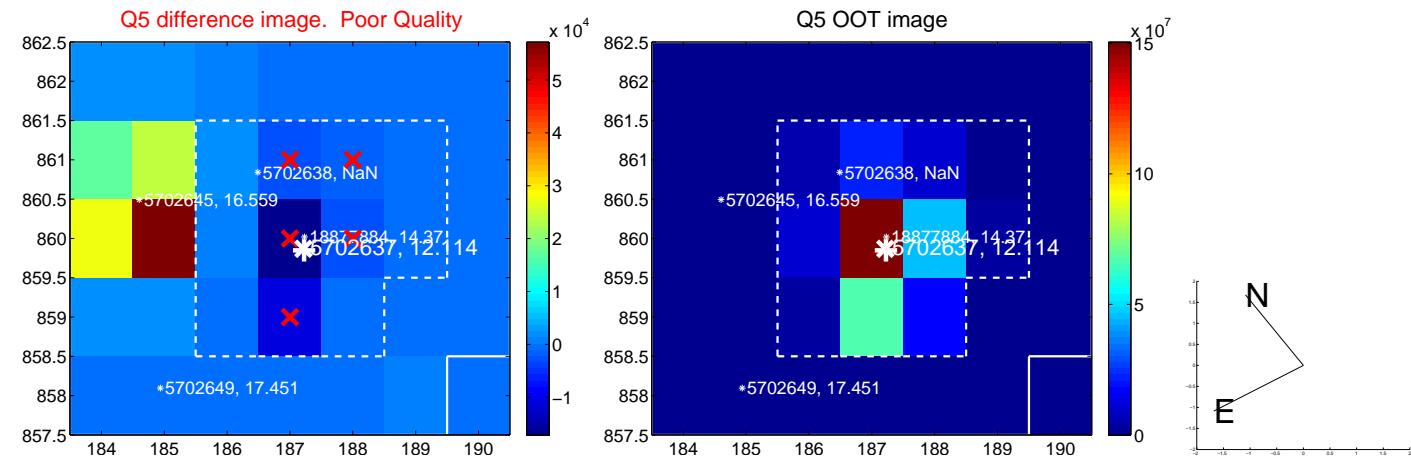


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

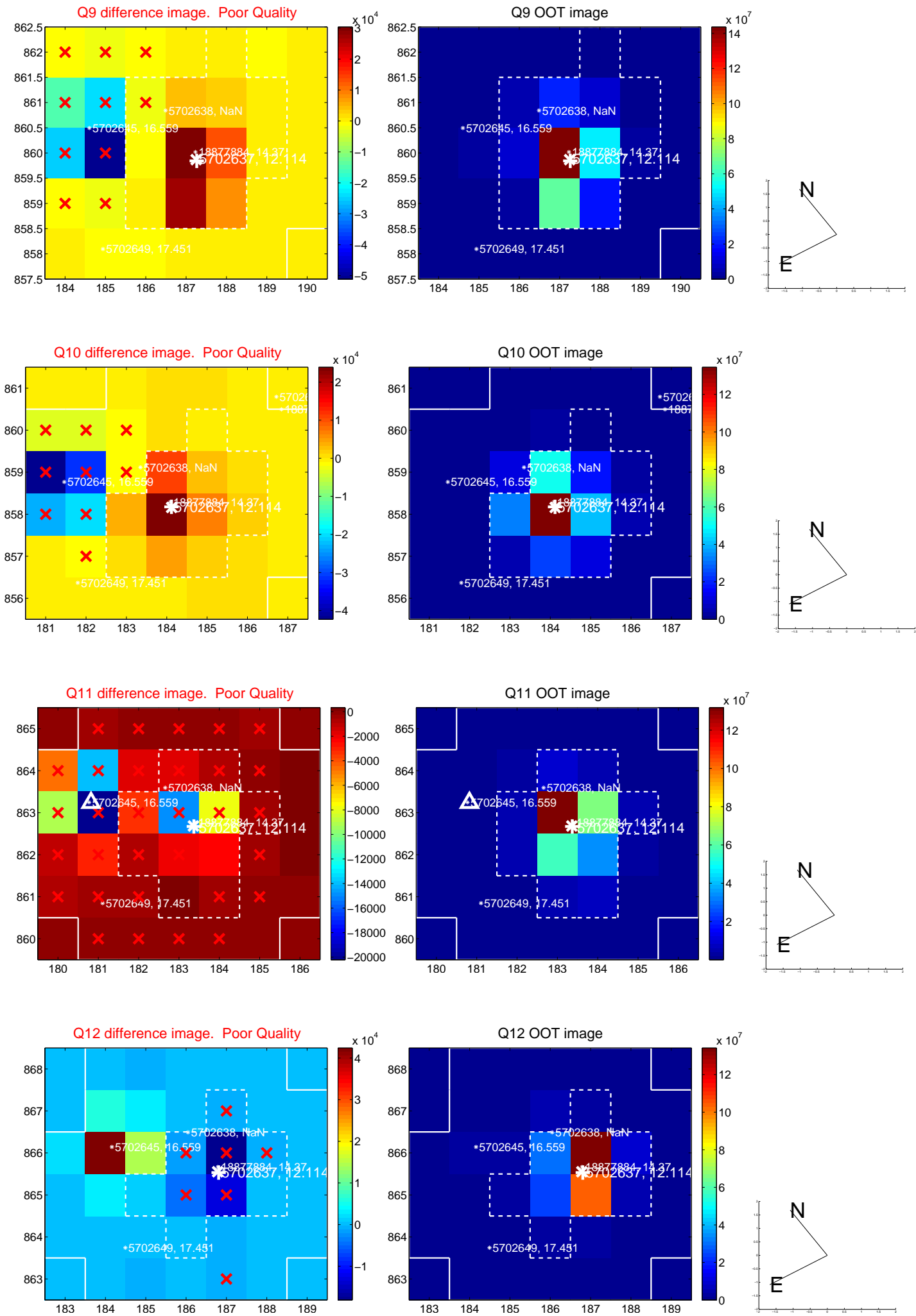
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



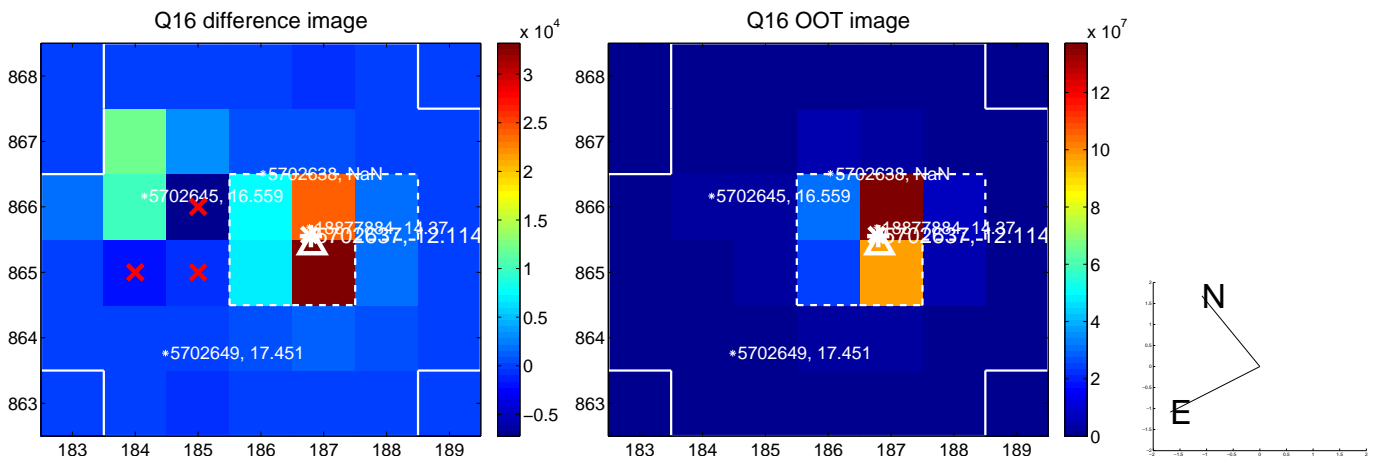
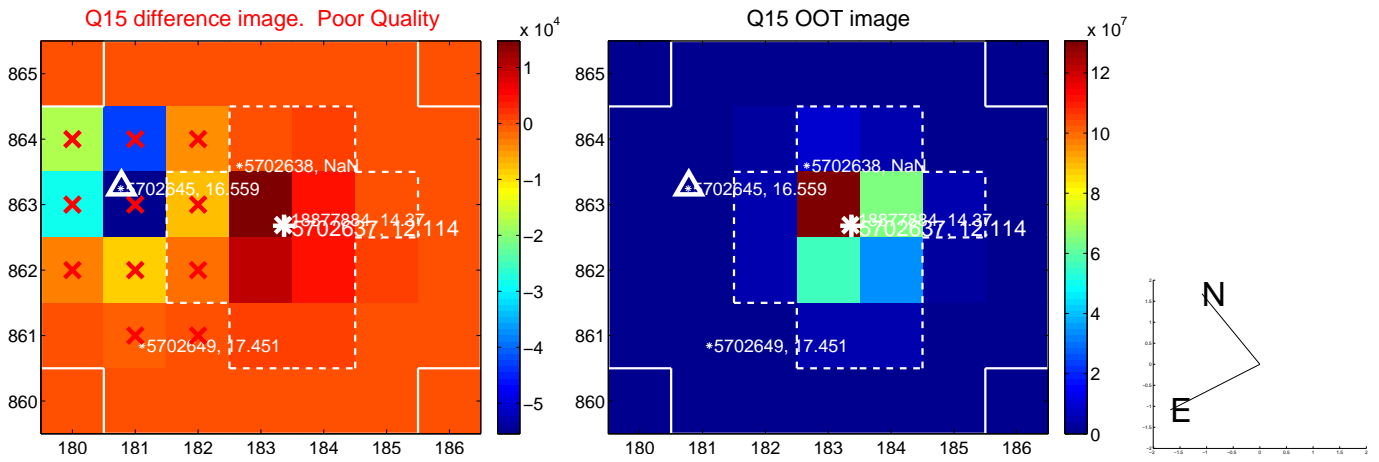
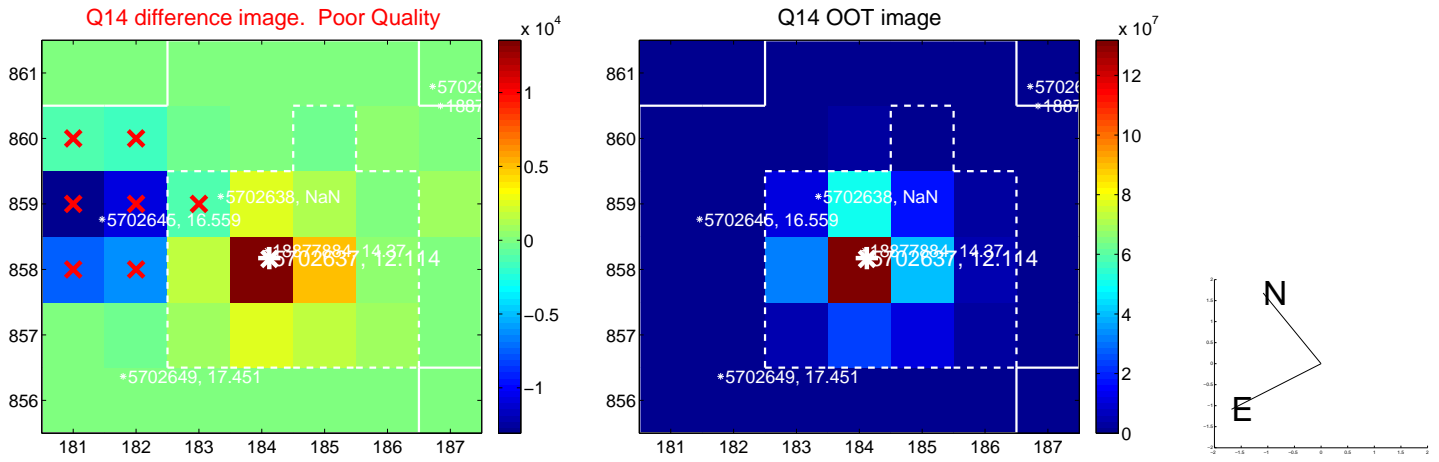
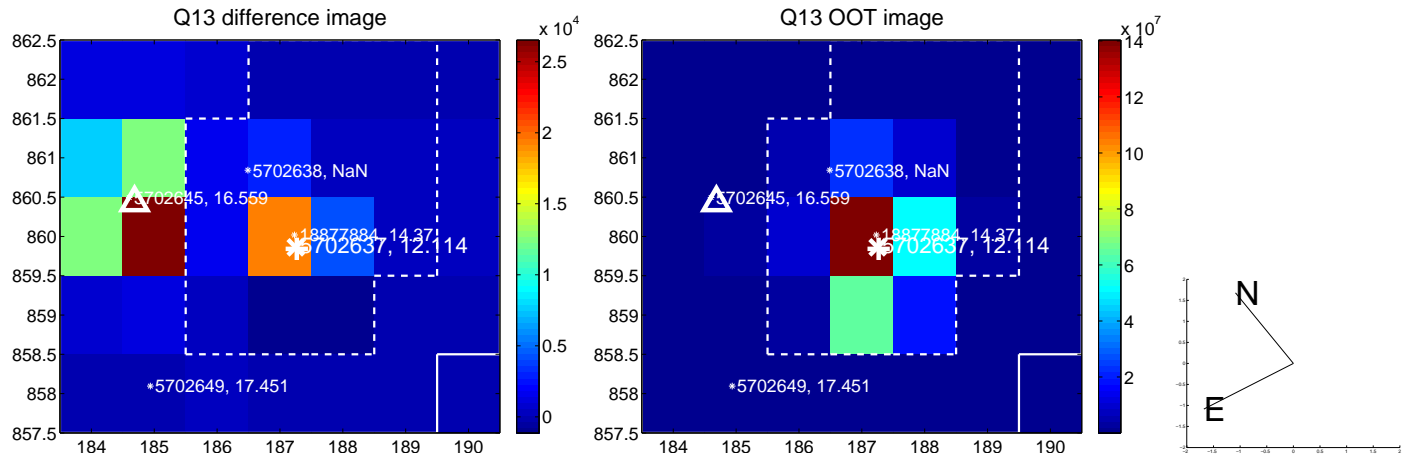
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



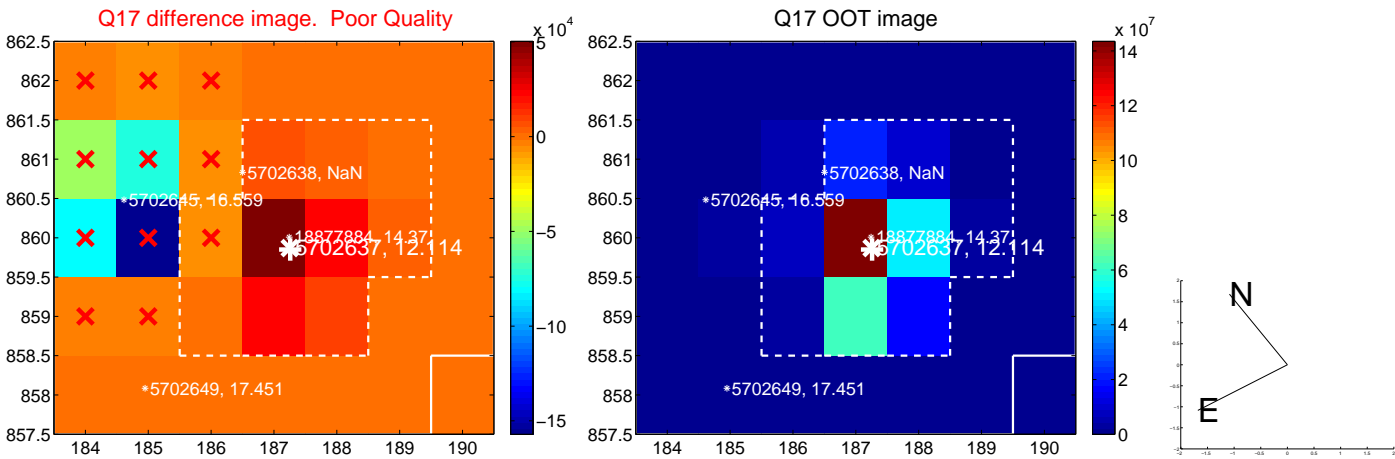
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



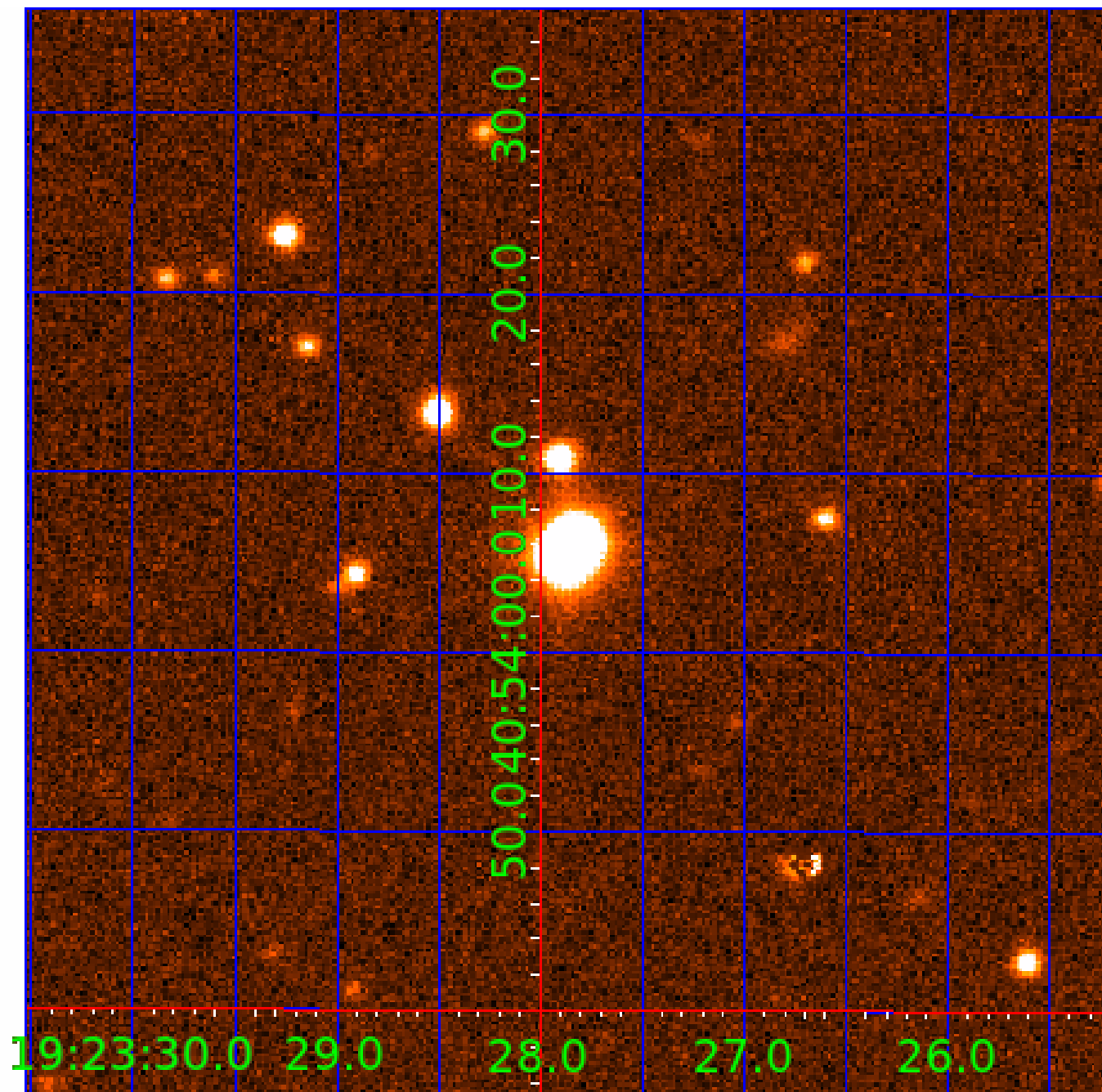
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005702637

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})
005702637-01	OBS	No	0.523486	132.015658	130.1	1.589	17.6	11.8	1.48	7057	1.97	23808.59
005702637-02	OBS	No	0.523493	131.869965	234.2	1.008	17.1	18.7	1.48	7057	2.65	23808.13
005702637-03	OBS	No	0.523490	131.624963	203.0	1.459	11.1	13.4	1.48	7057	2.14	23808.35
005702637-04	OBS	No	1.314681	132.777875	125.1	3.500	8.3	-1.0	1.48	7057	1.68	6974.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005702637-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_RESOLVED_OFFSET
005702637-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_UNCERTAIN
005702637-03	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005702637-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_NOFITS

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 005702637-03

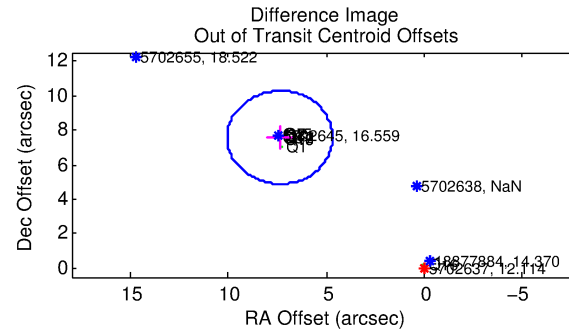
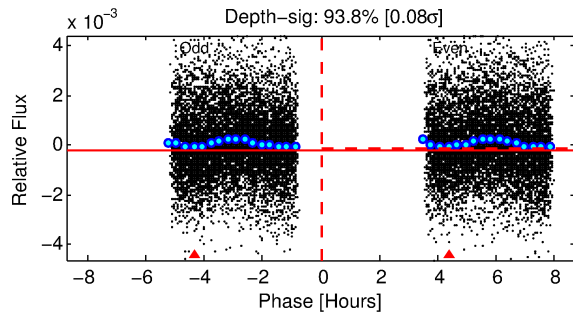
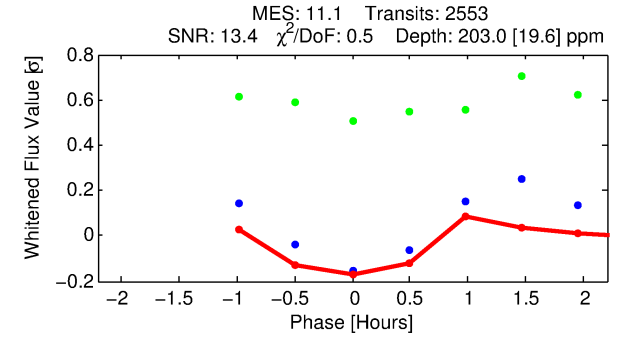
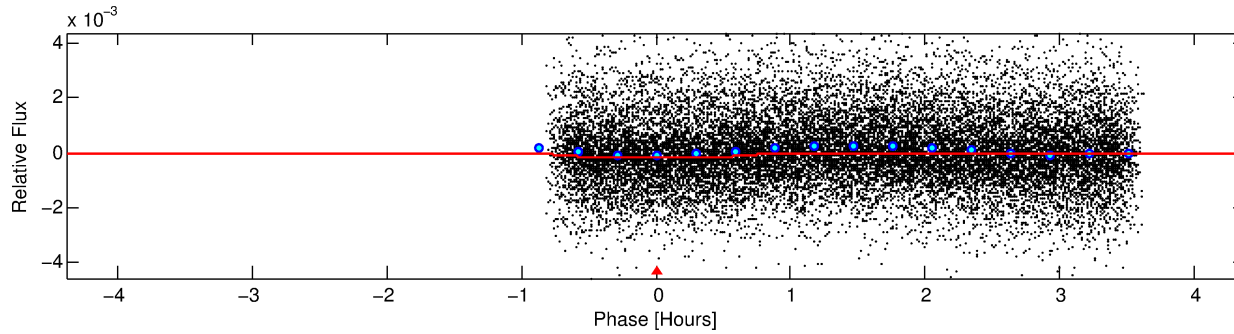
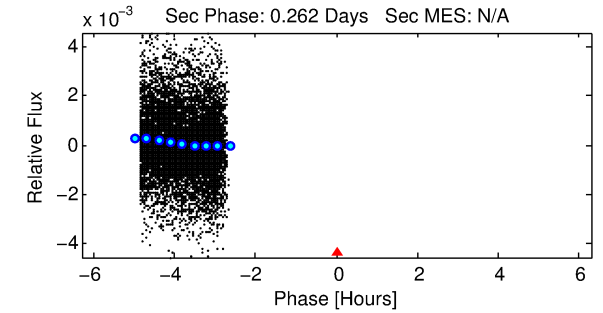
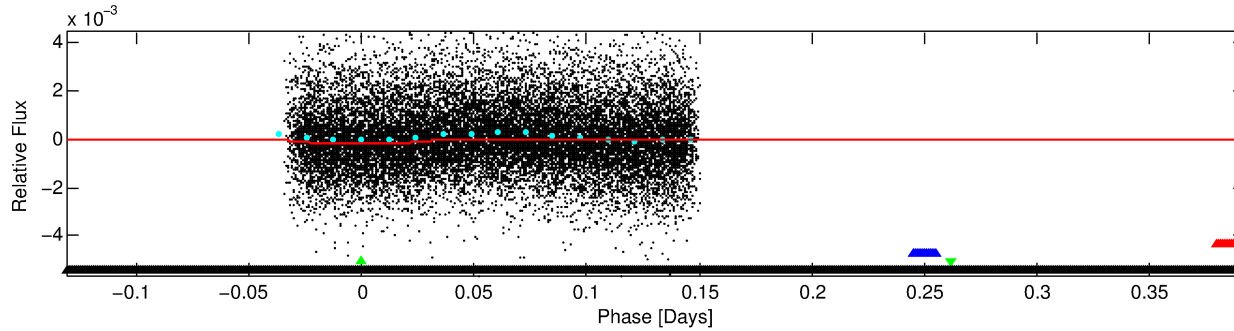
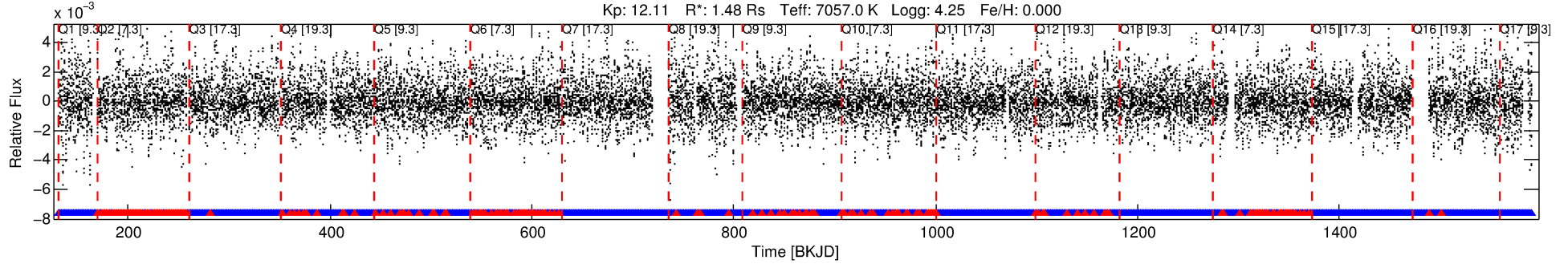
No Significant Match Found

DV One-Page Summary

KIC: 5702637 Candidate: 3 of 4 Period: 0.523 d

KOI: K04217 Corr: No Ephemeris Match

Kp: 12.11 R*: 1.48 Rs Teff: 7057.0 K Logg: 4.25 Fe/H: 0.000



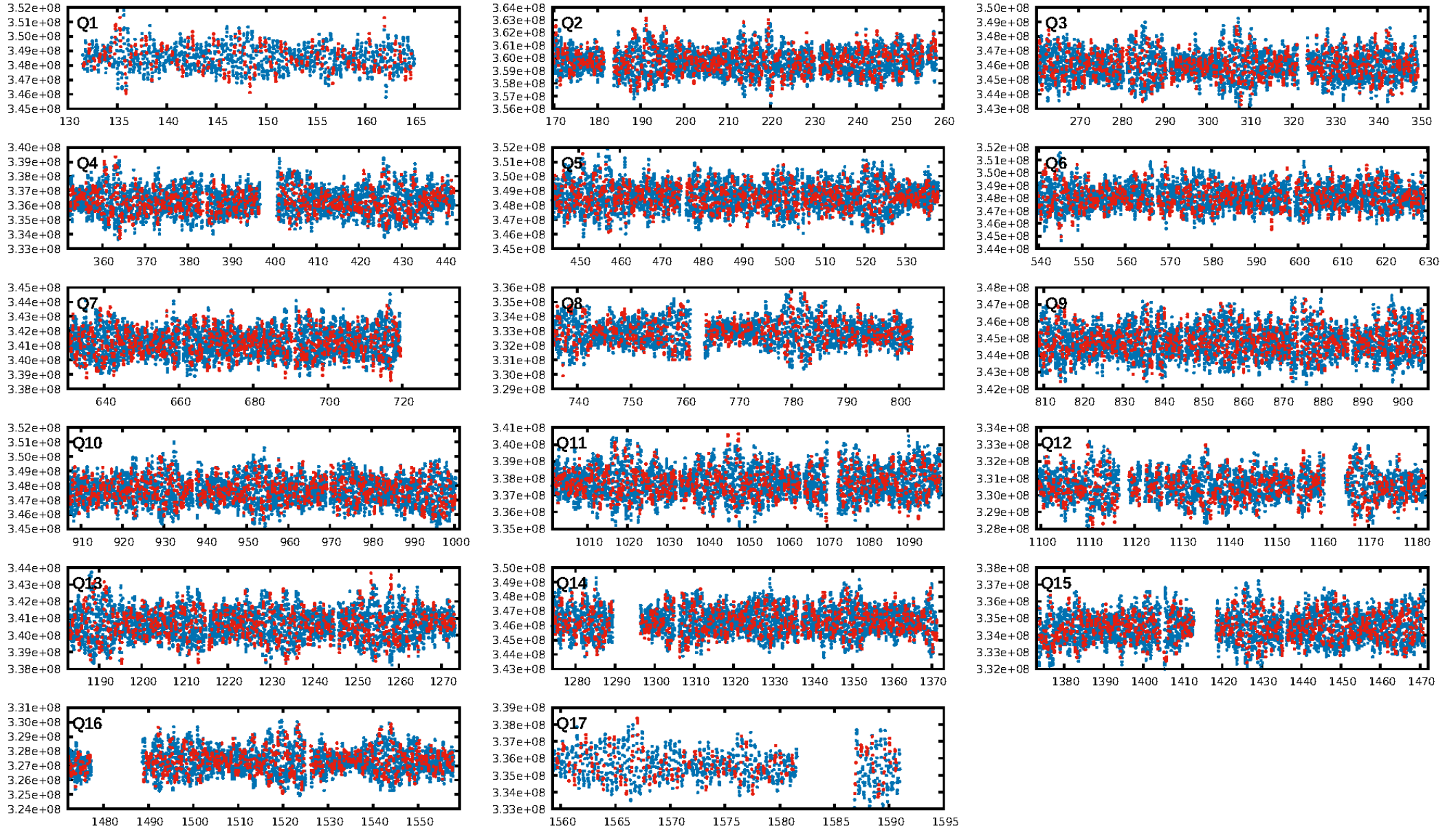
DV Fit Results:

Period = 0.52349 [0.00001] d
Epoch = 131.6250 [0.0009] BKJD
Rp/R* = 0.0133 [0.0047]
a/R* = 2.83 [4.97]
b = 0.11 [18.72]
Seff = 23808.34 [10048.43]
Teq = 3167 [334] K
Rp = 2.14 [1.05] Re
a = 0.0143 [0.0040] AU

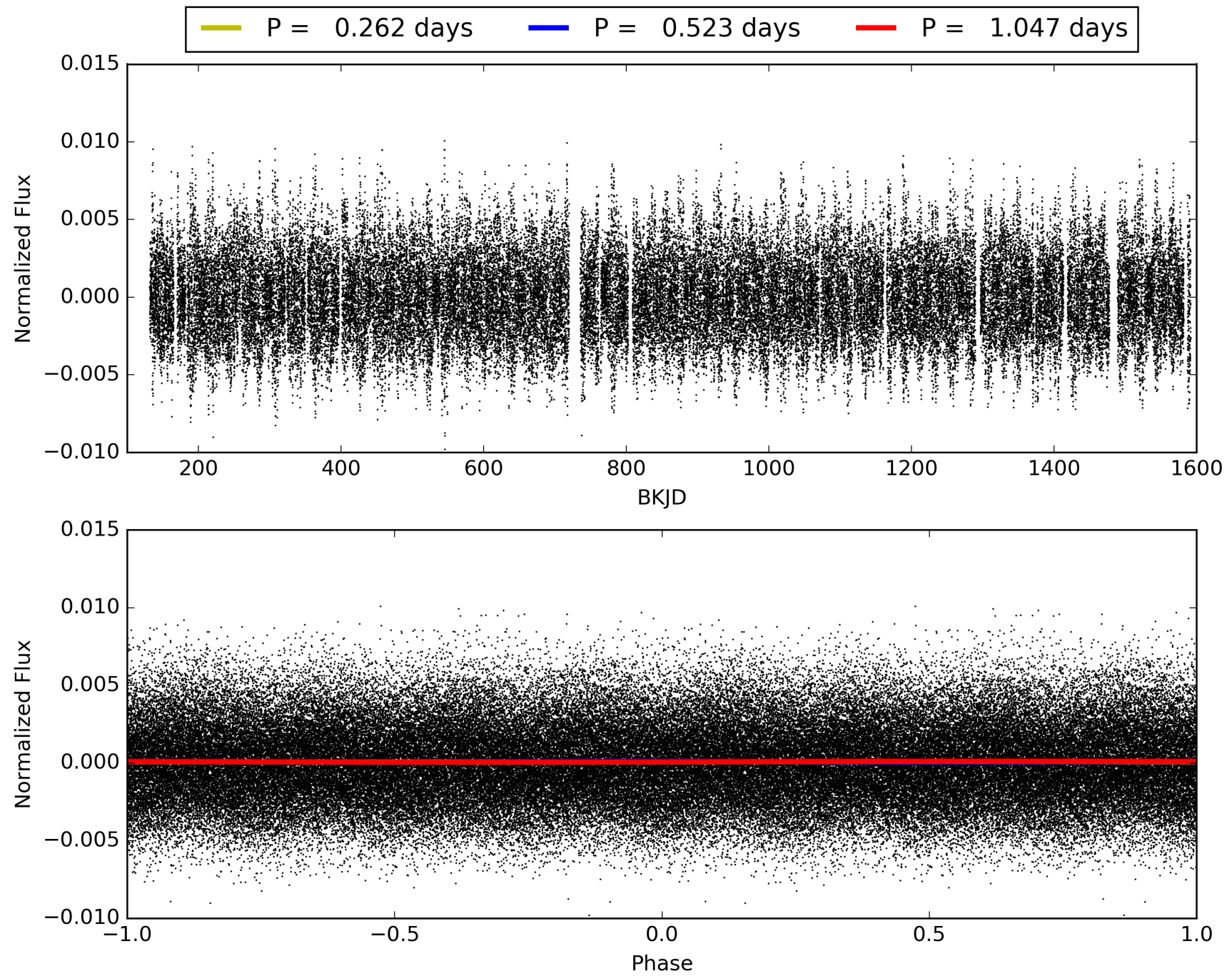
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.90 [2187/2439]
GhostDiagnostic-chr: 2.52
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 10.570 arcsec [11.78σ]
KicOffset-rm: 10.526 arcsec [12.79σ]
OotOffset-st: 2/4/4/3 [13]
KicOffset-st: 2/4/4/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 005702637-03, PDC Light Curves

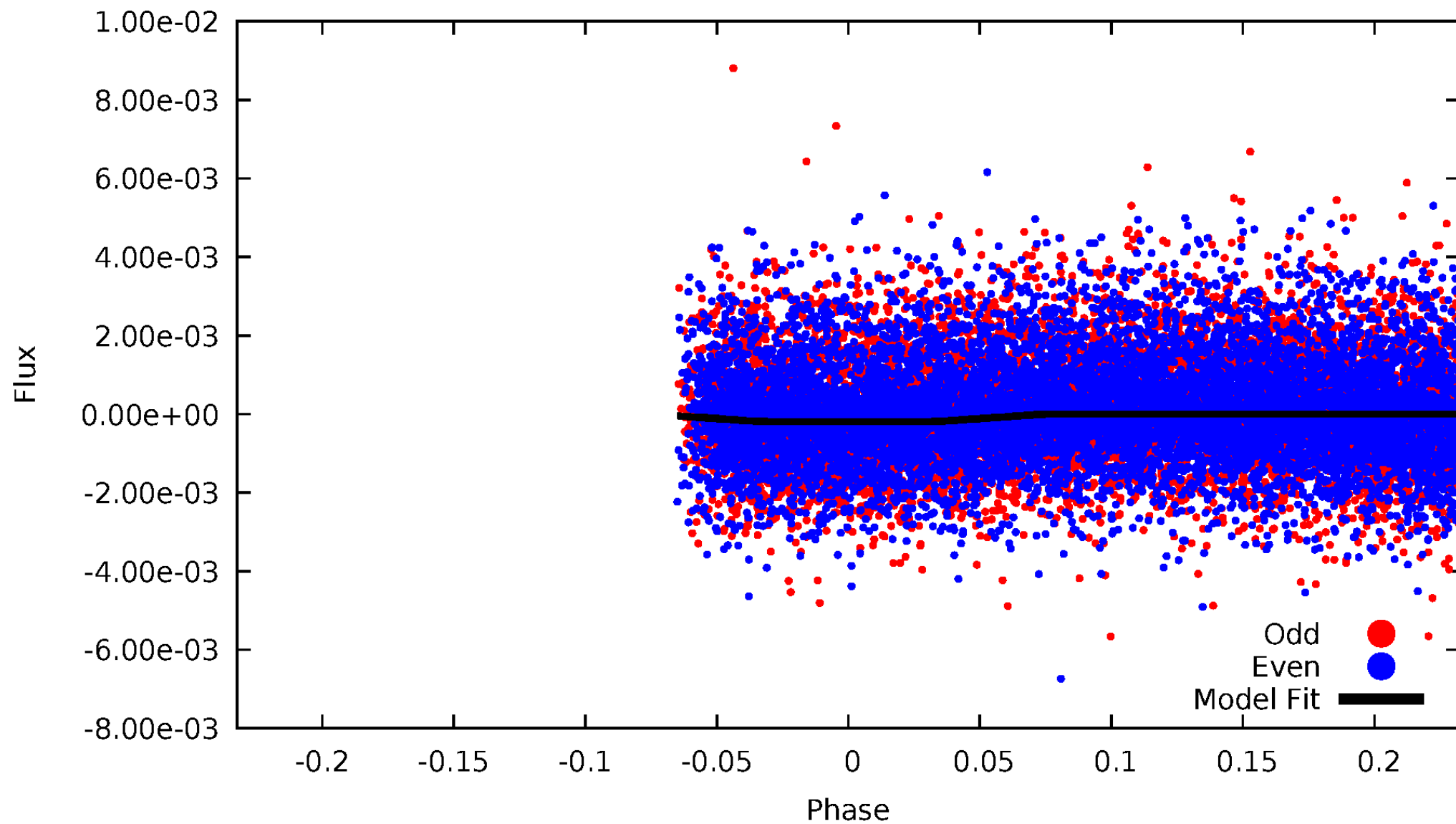


TCE 005702637-03



DV Odd/Even

TCE 005702637-03

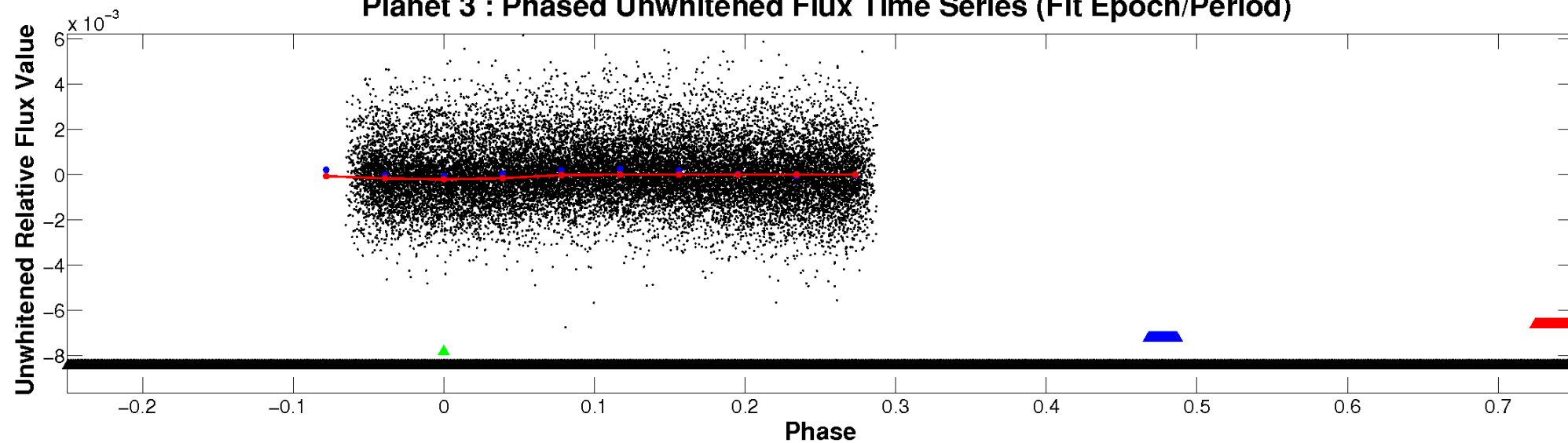


ALT Odd/Even

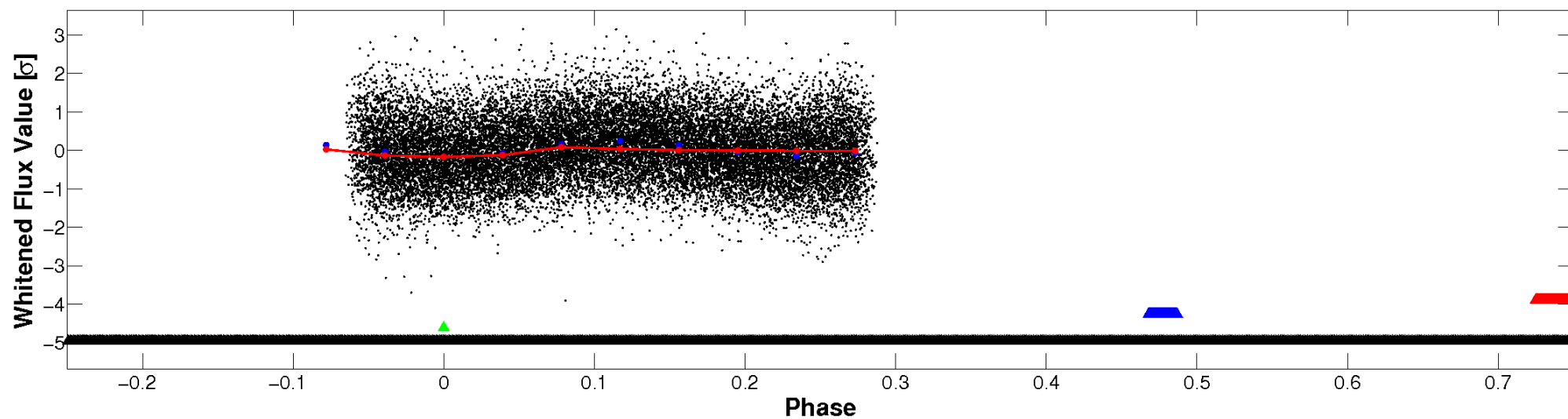
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

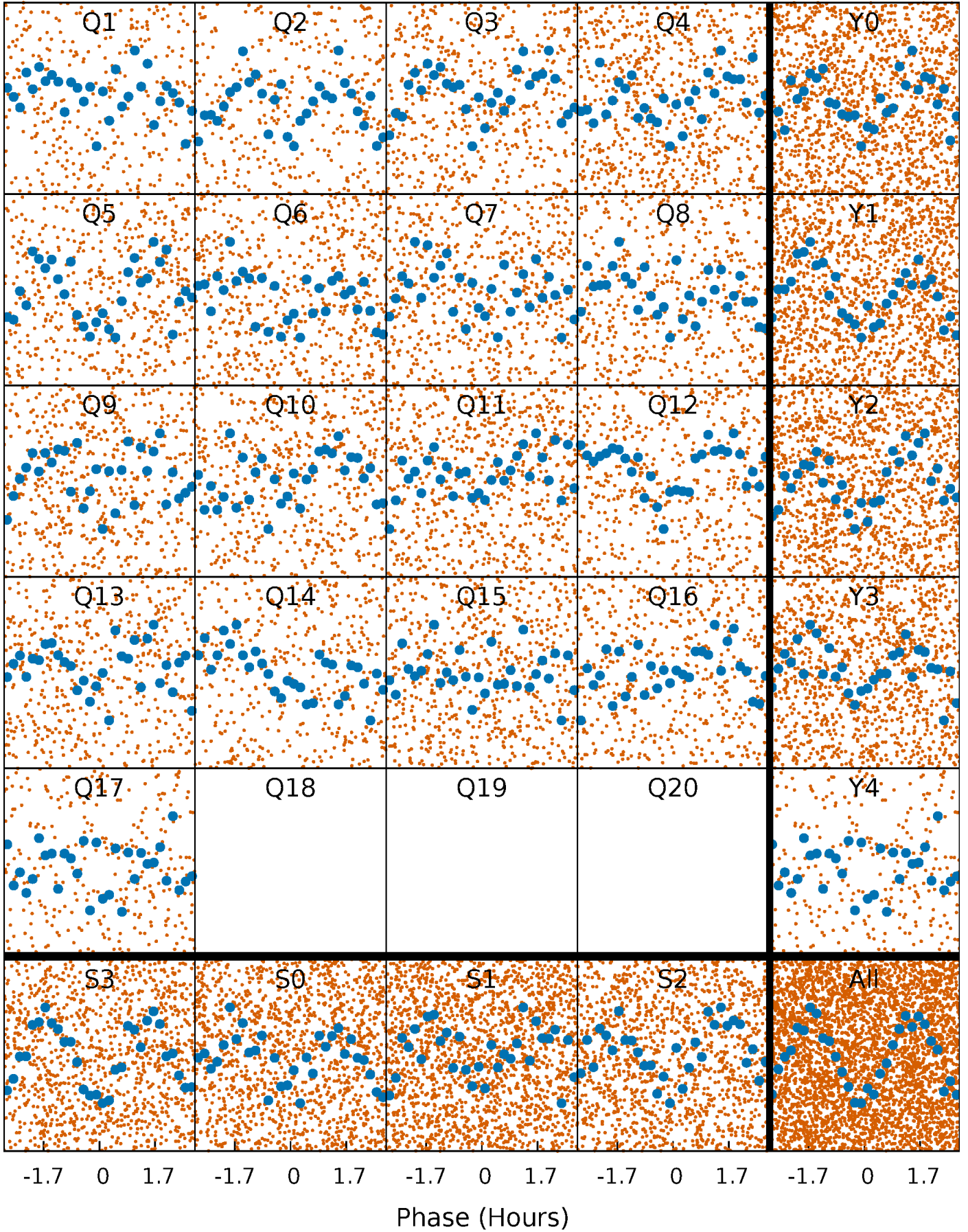


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



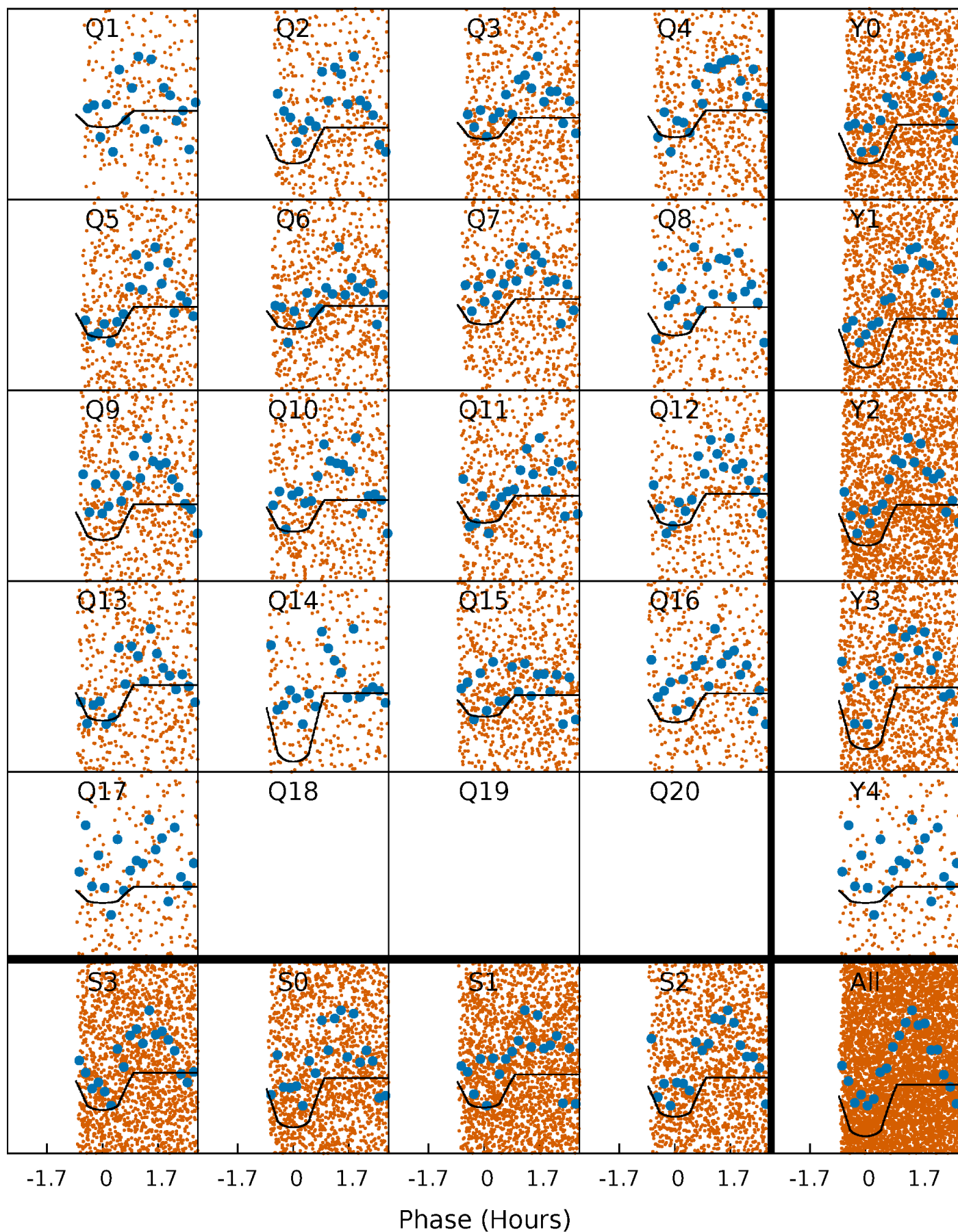
PDC Quarter-Phased Transit Curves

TCE 005702637-03 P= 0.523490 Days $T_0=131.624963$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005702637-03 P= 0.523490 Days $T_0=131.624963$ (BKJD)

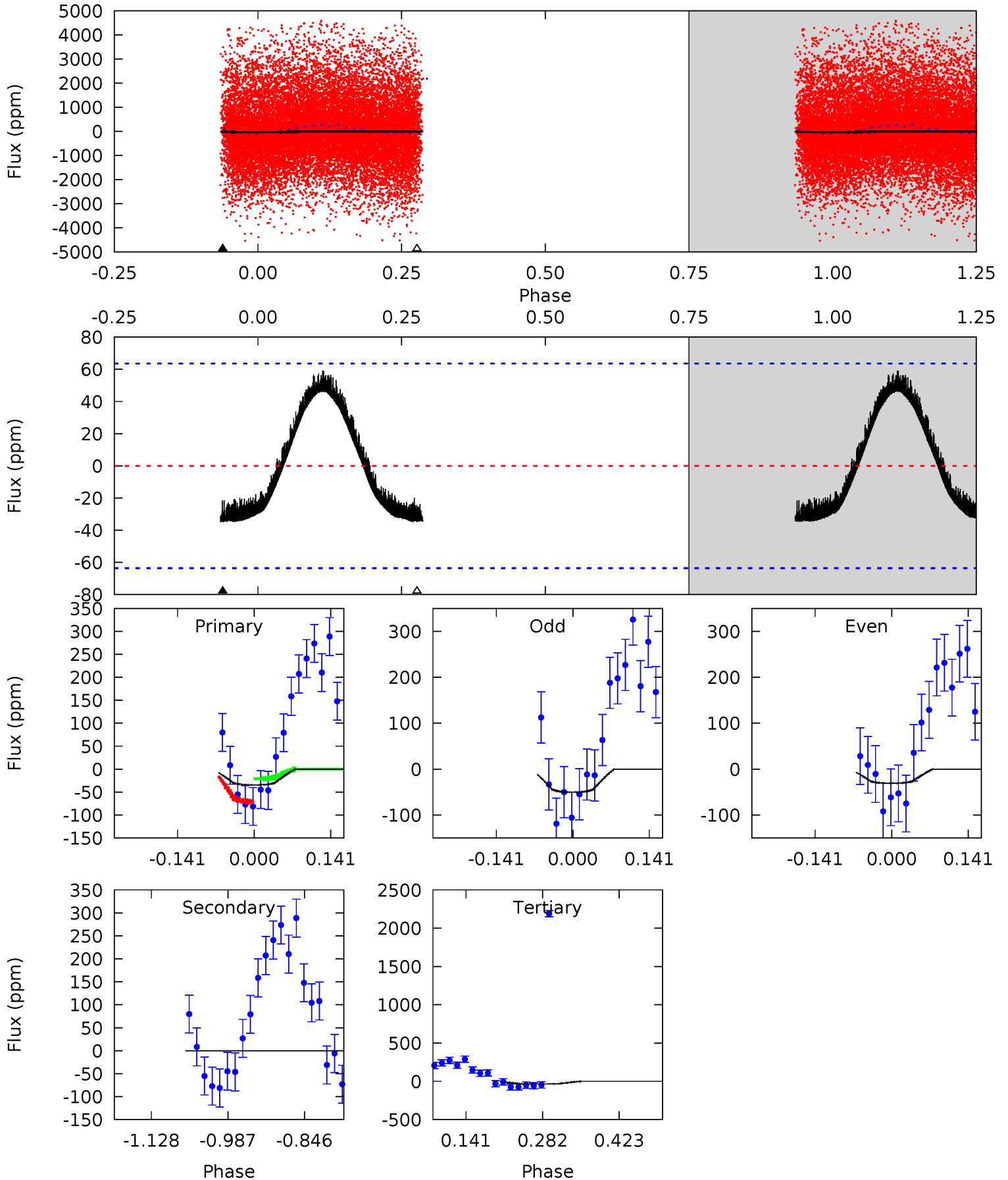


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005702637-03, P = 0.523490 Days, E = 131.101473 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.44	0	2.44	0	4.49	1.47	2.21	0.00	2.44	-2.44	0	0.70	0.21	0.63	1.79



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005702637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7057^{+166}_{-270}	$4.251^{+0.070}_{-0.210}$	$0.000^{+0.200}_{-0.350}$	$1.482^{+0.501}_{-0.215}$	$1.426^{+0.216}_{-0.195}$	$0.617^{+0.239}_{-0.328}$
	+2%/-4%	+2%/-5%	+inf%/-inf%	+34%/-15%	+15%/-14%	+39%/-53%
Source	PHO1	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 005702637-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 14	$2.20^{+0.90}_{-0.82}$	4510^{+298}_{-239}	-3999^{+7091}_{-702}	$0.004^{+0.354}_{-0.380}$
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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

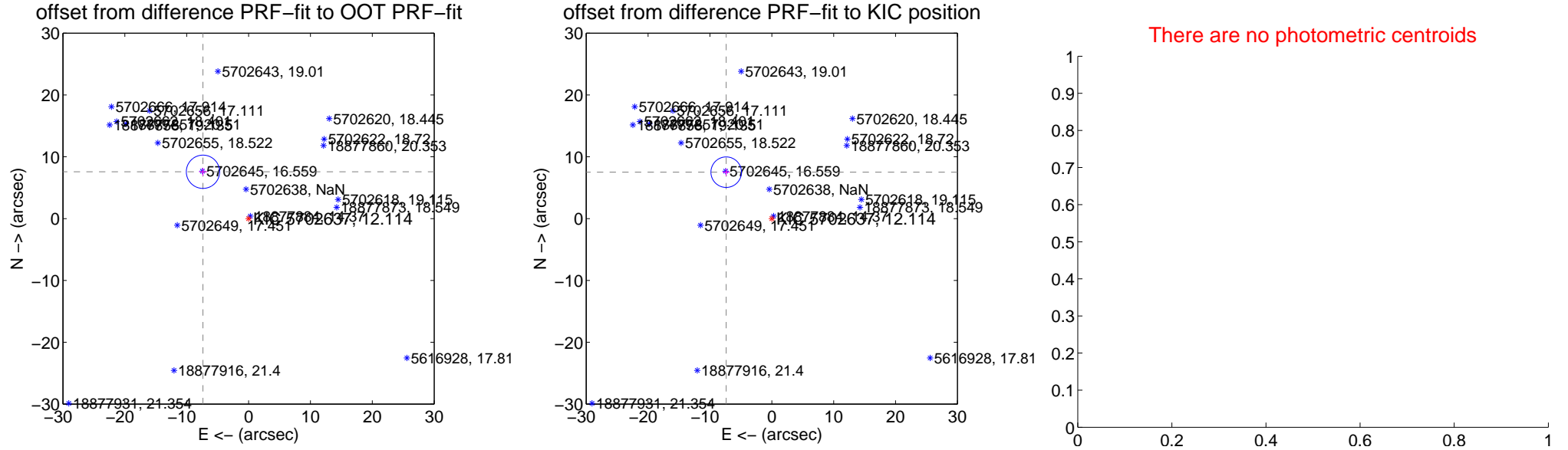
DV Centroid Data

Supplemental centroid analysis for 005702637-03. Kepler magnitude: 12.11. Transit SNR 13.44

There are 5 quarters with good PRF difference image offsets

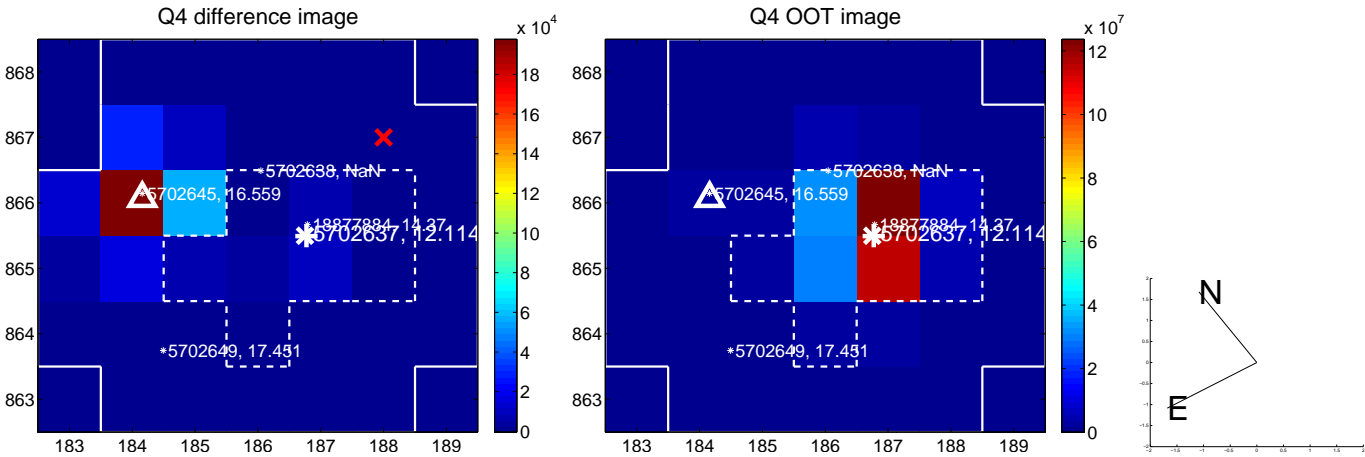
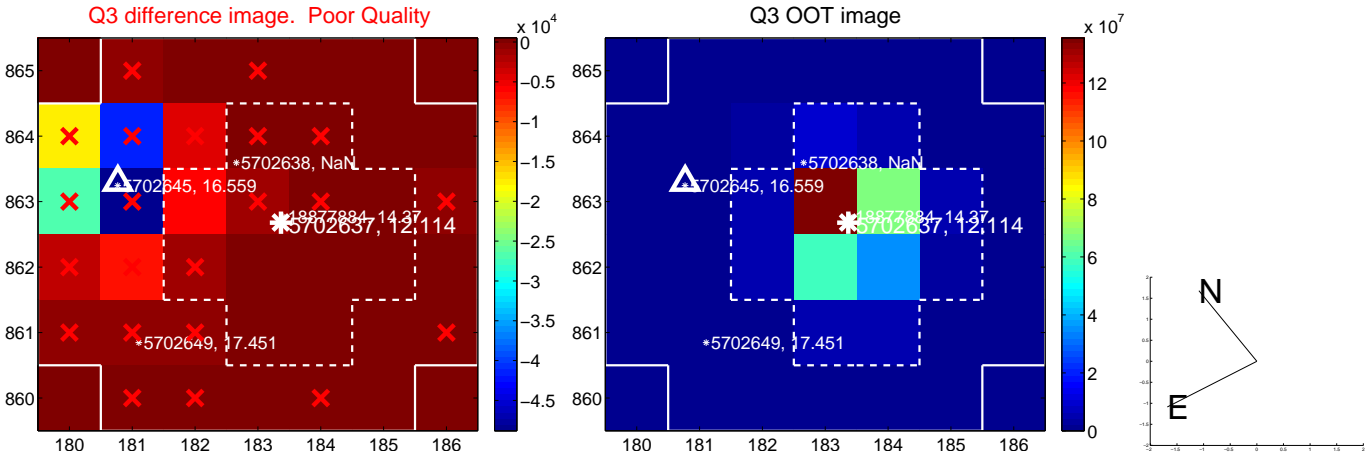
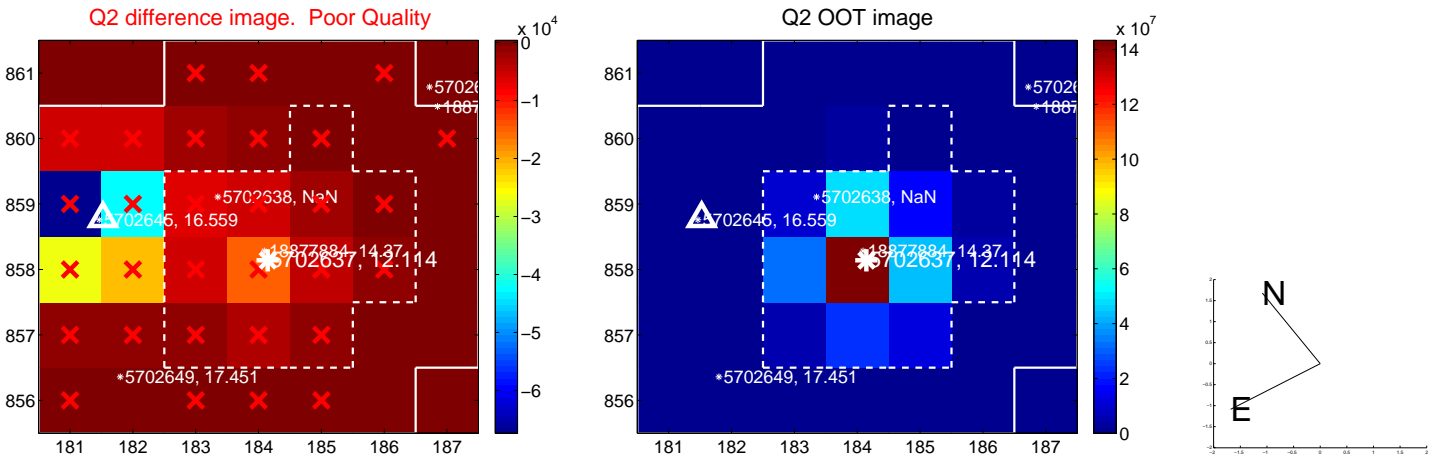
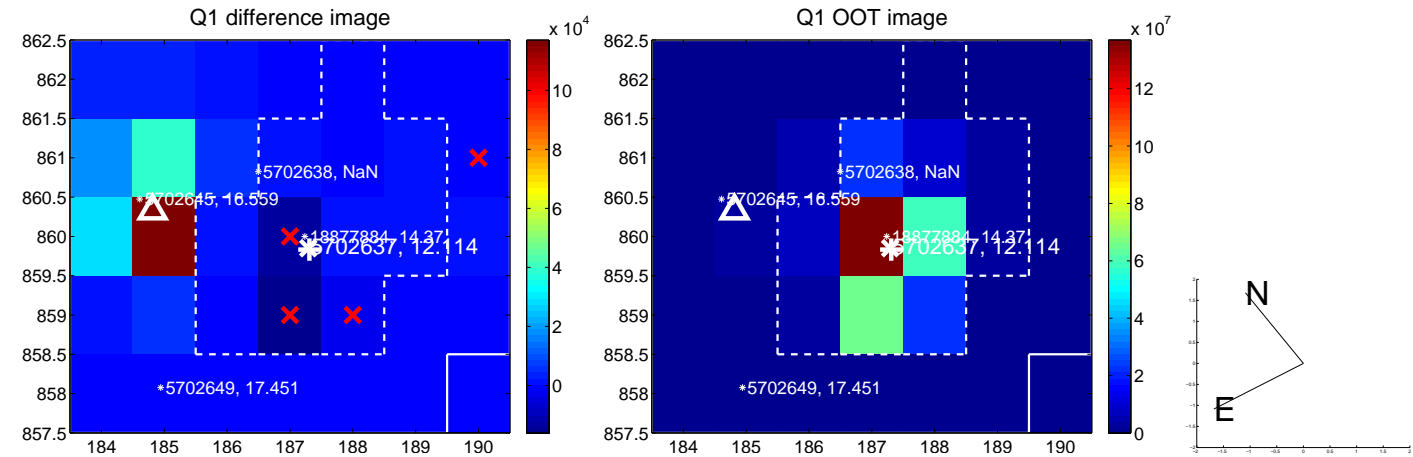
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.570 ± 0.897	11.78	7.370 ± 0.634	7.577 ± 0.639
PRF-fit source offset from KIC position	10.526 ± 0.823	12.79	7.374 ± 0.581	7.511 ± 0.587
photometric centroid source offset	—	—	—	—

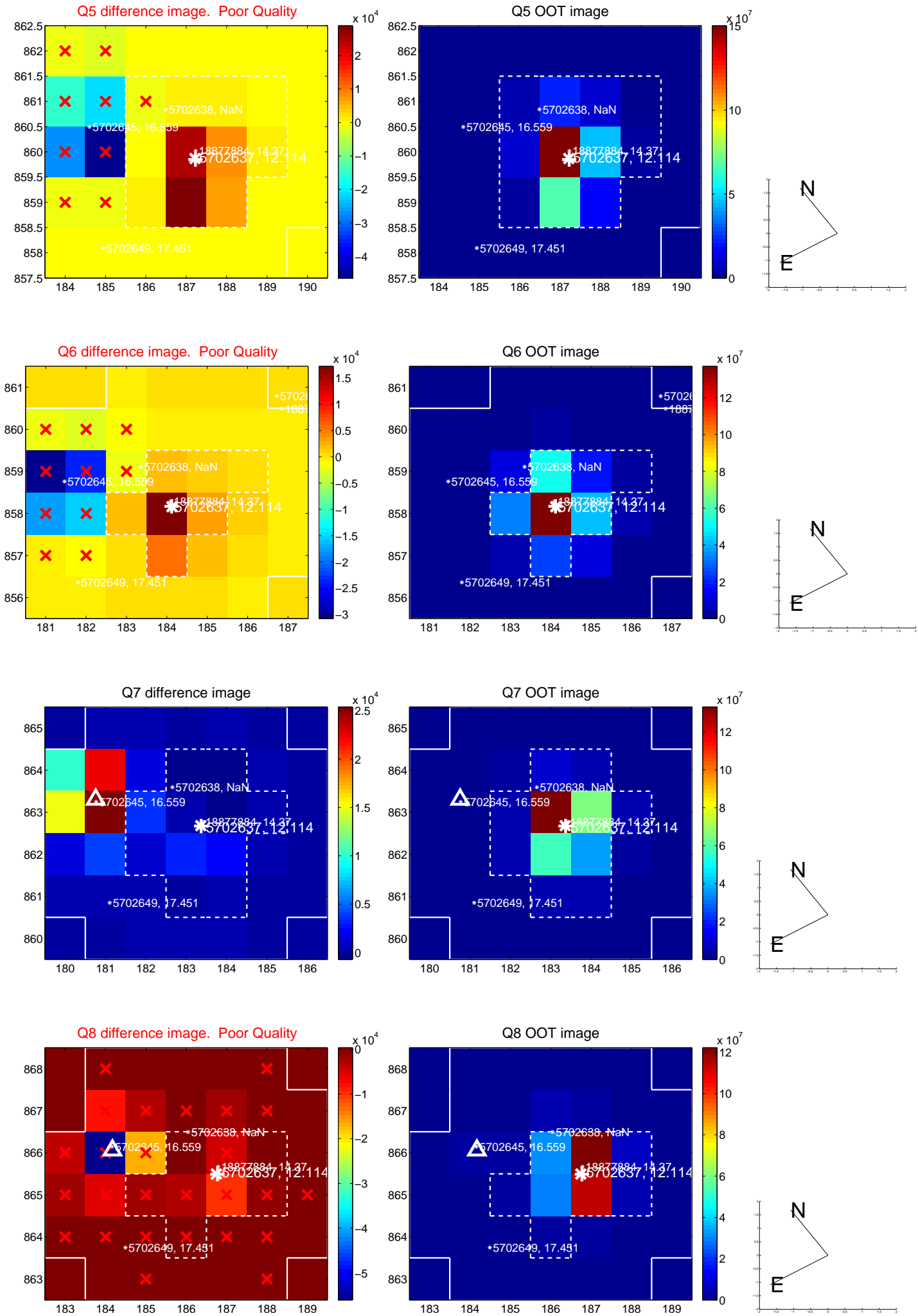


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

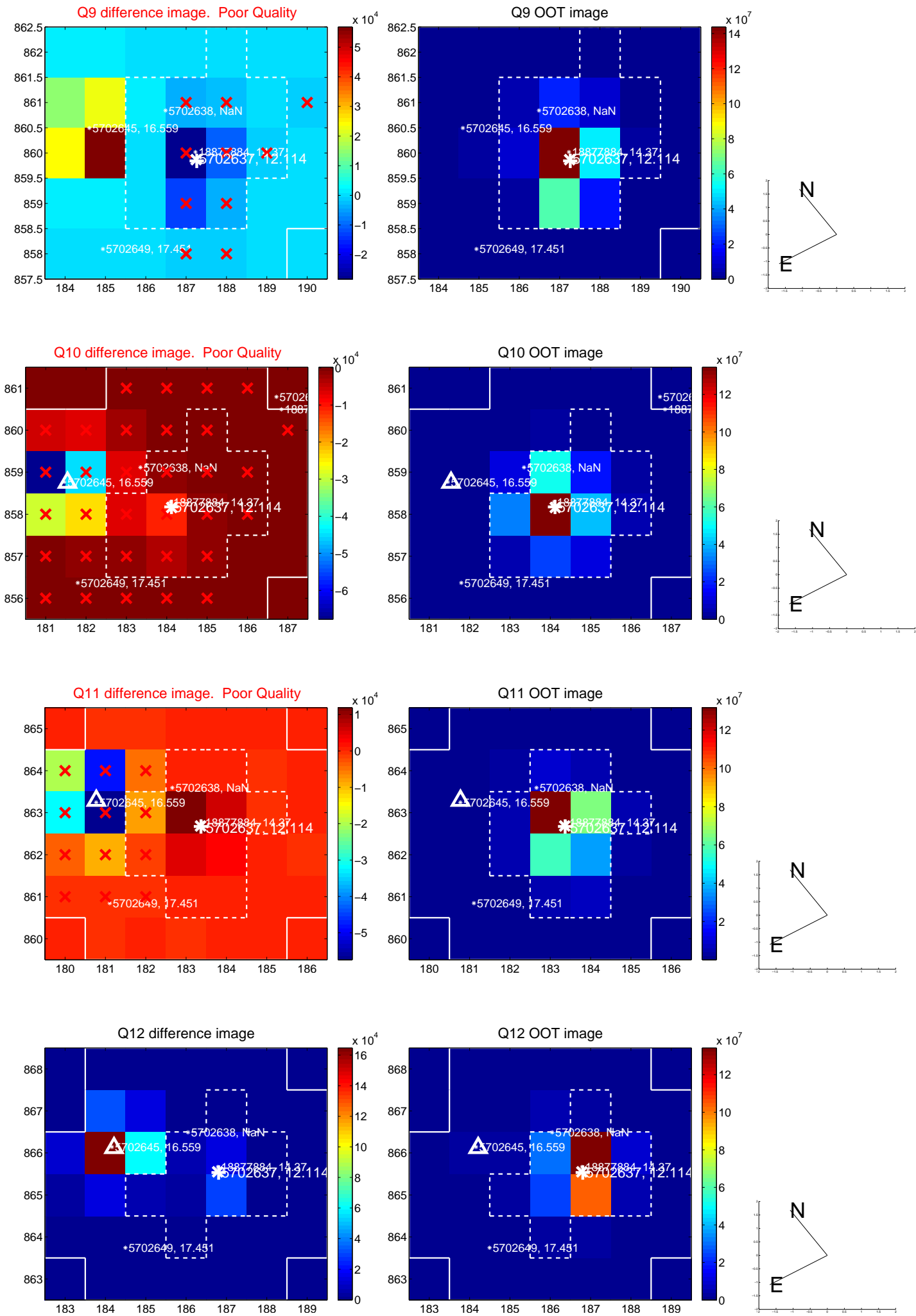
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



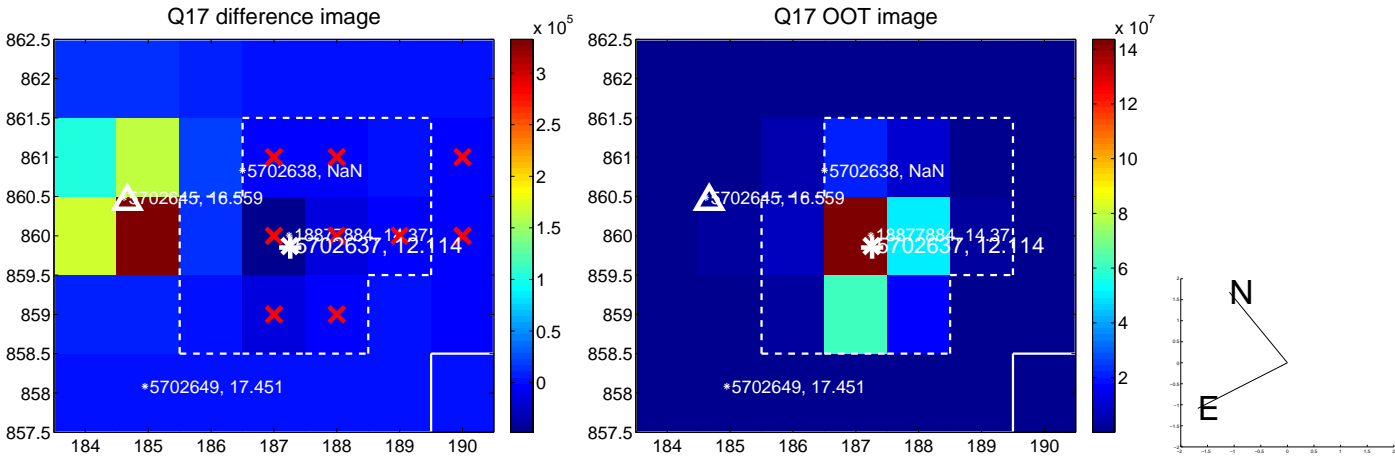
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



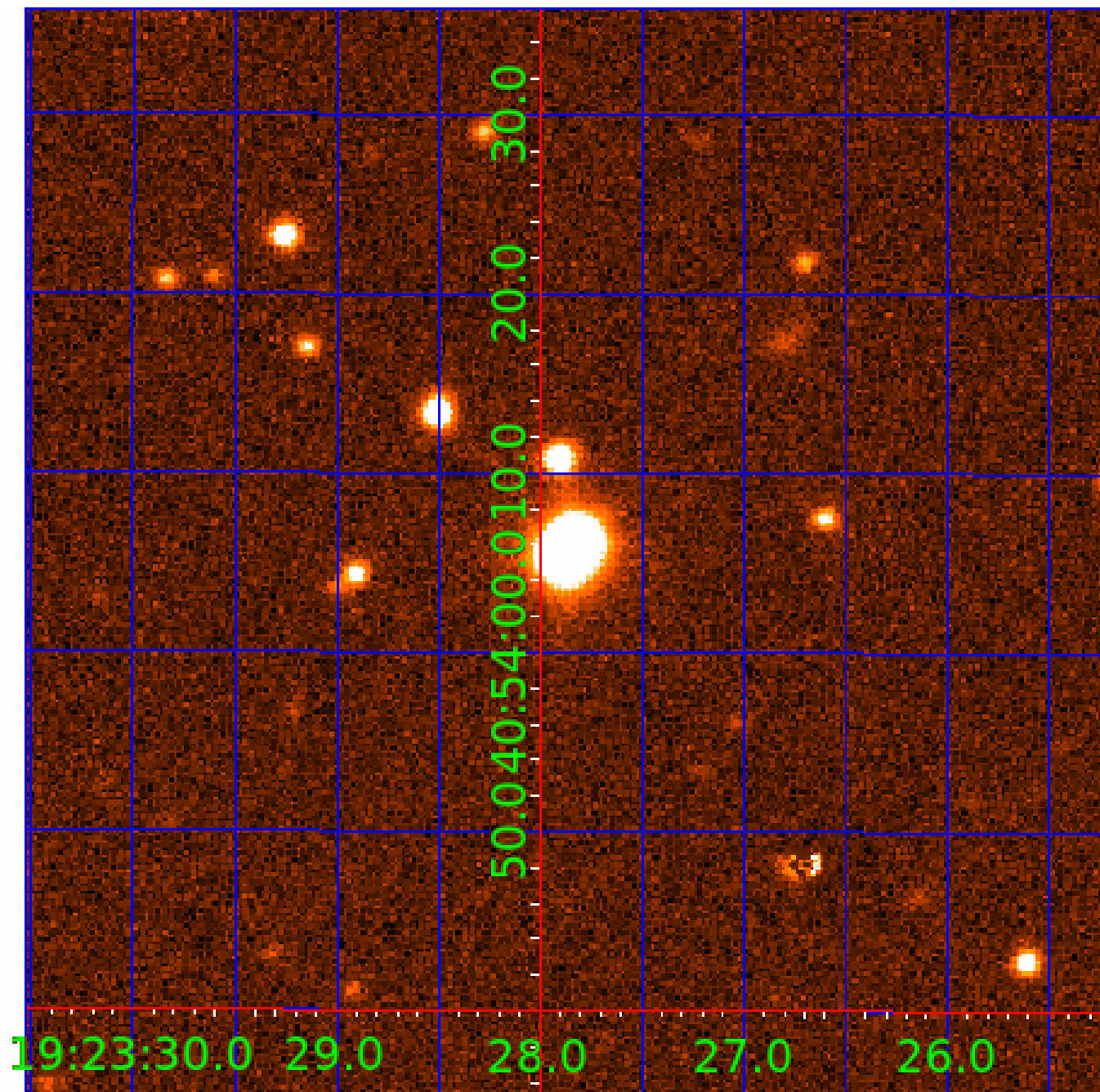
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005702637

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})
005702637-01	OBS	No	0.523486	132.015658	130.1	1.589	17.6	11.8	1.48	7057	1.97	23808.59
005702637-02	OBS	No	0.523493	131.869965	234.2	1.008	17.1	18.7	1.48	7057	2.65	23808.13
005702637-03	OBS	No	0.523490	131.624963	203.0	1.459	11.1	13.4	1.48	7057	2.14	23808.35
005702637-04	OBS	No	1.314681	132.777875	125.1	3.500	8.3	-1.0	1.48	7057	1.68	6974.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005702637-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_RESOLVED_OFFSET
005702637-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_UNCERTAIN
005702637-03	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005702637-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—CENT_NOFITS

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 005702637-04

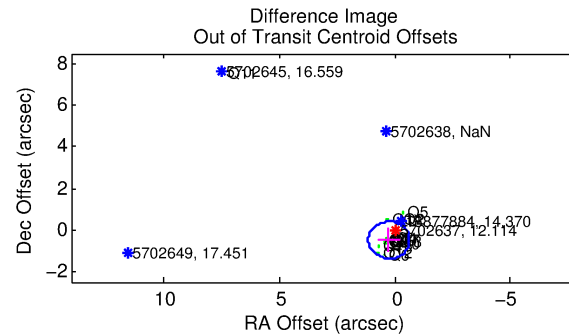
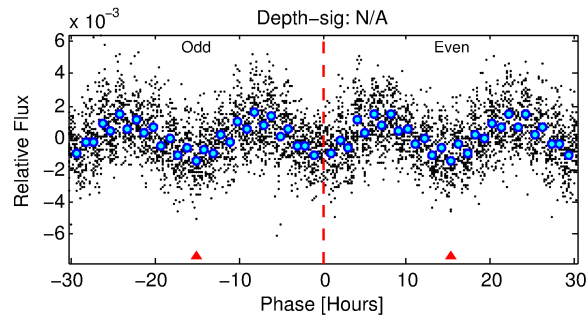
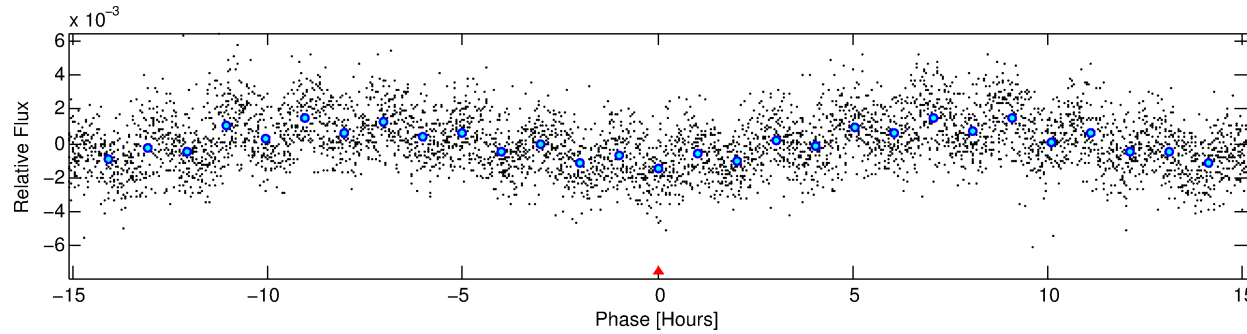
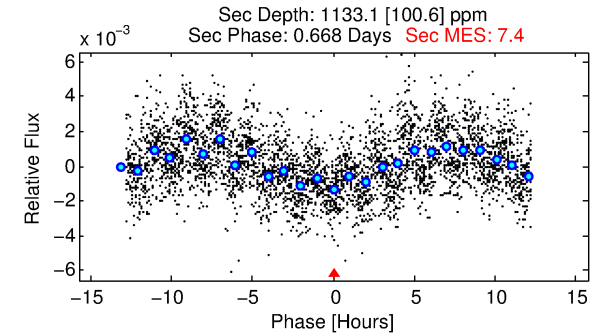
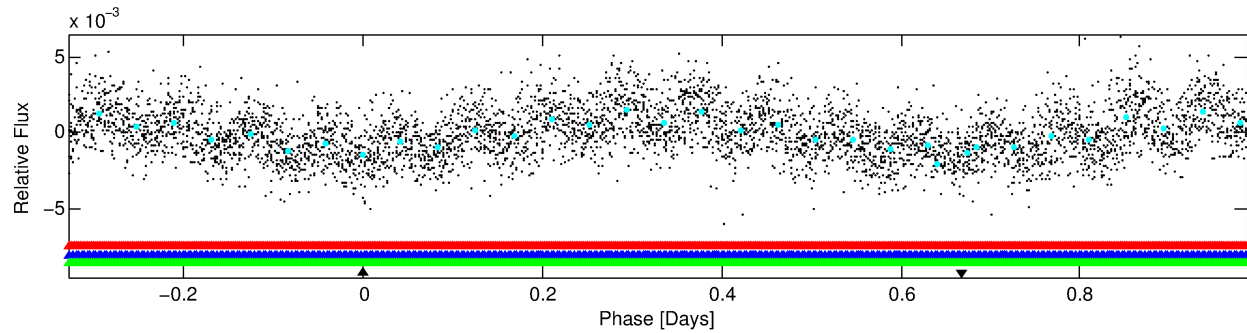
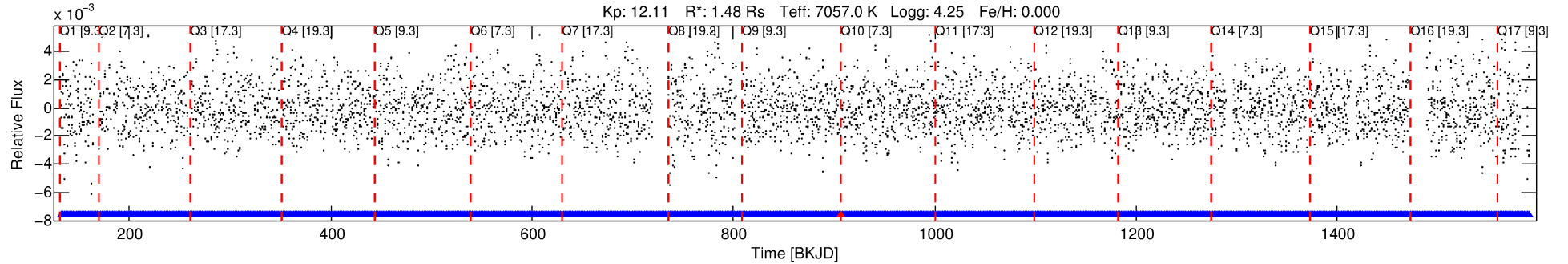
No Significant Match Found

DV One-Page Summary

KIC: 5702637 Candidate: 4 of 4 Period: 1.315 d

KOI: K04217 Corr: No Ephemeris Match

Kp: 12.11 R*: 1.48 Rs Teff: 7057.0 K Logg: 4.25 Fe/H: 0.000



TPS TCE Results:

Period = 1.31468 d
Epoch = 132.7779 BKJD

DV fit results are unavailable

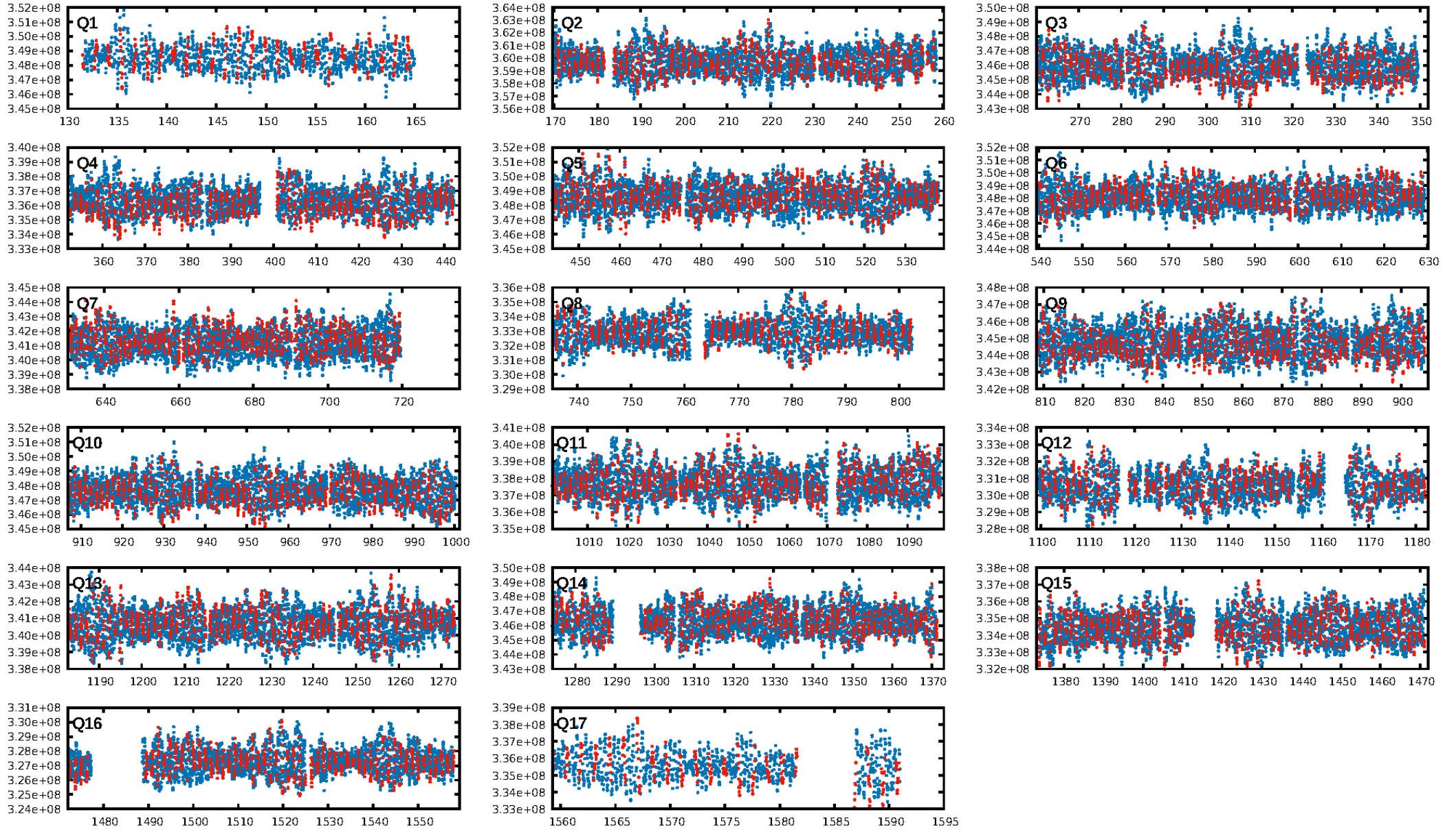
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.21 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [471/472]
GhostDiagnostic-chr: 0.5633
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.546 arcsec [1.84 σ]
KicOffset-rm: 0.594 arcsec [1.78 σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 0.00 [0/17]

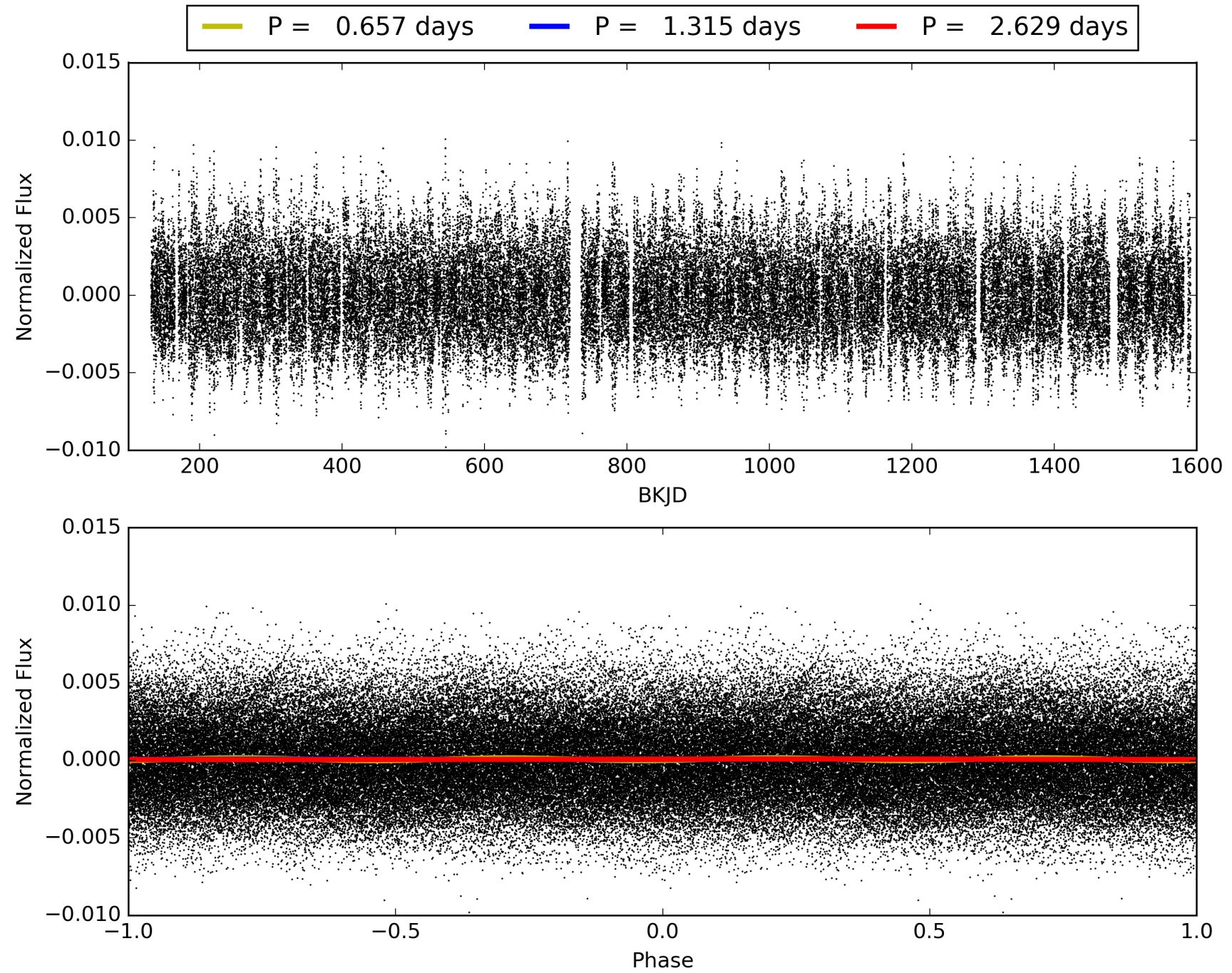
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:30:53 Z

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

TCE 005702637-04, PDC Light Curves

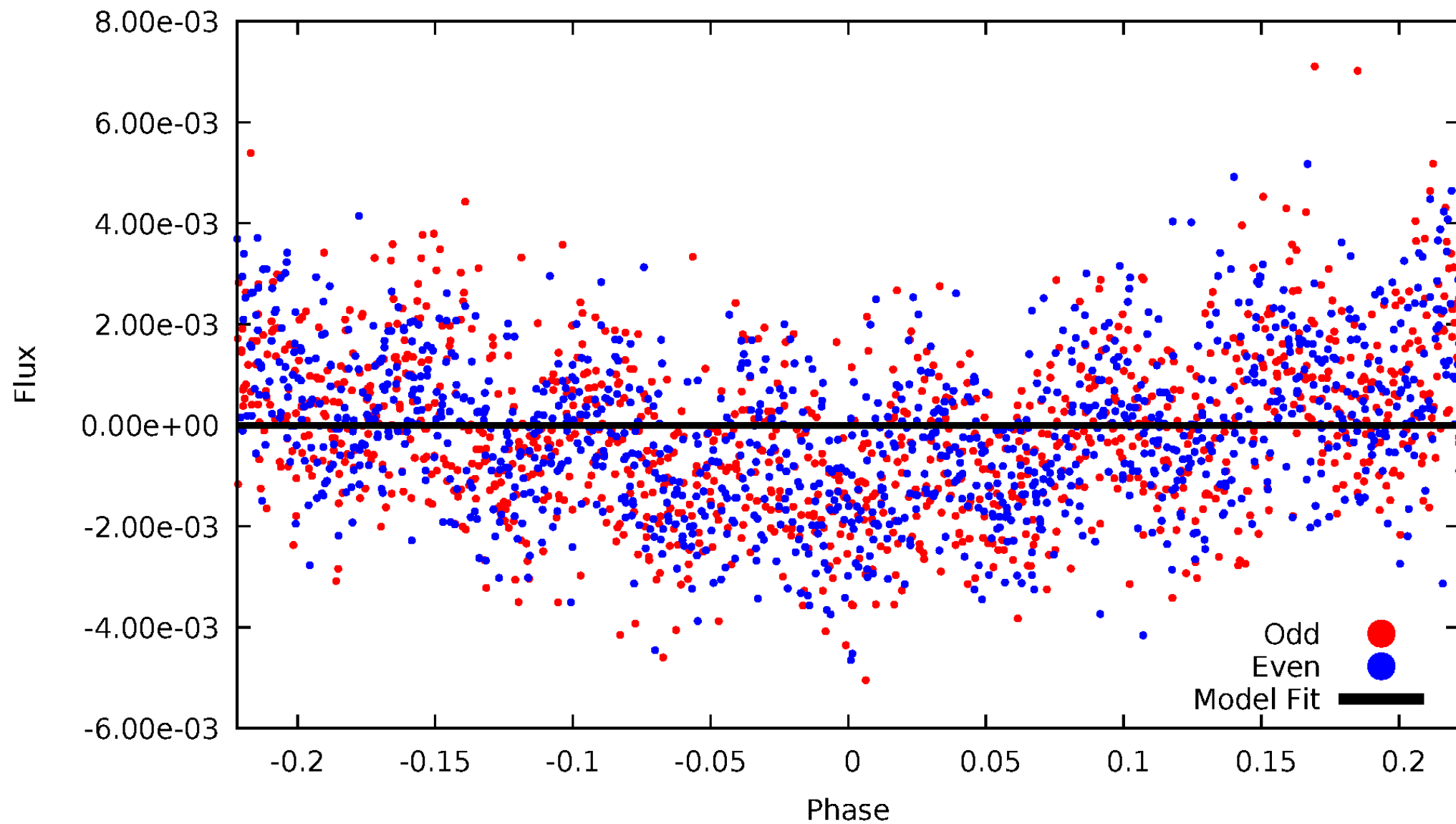


TCE 005702637-04



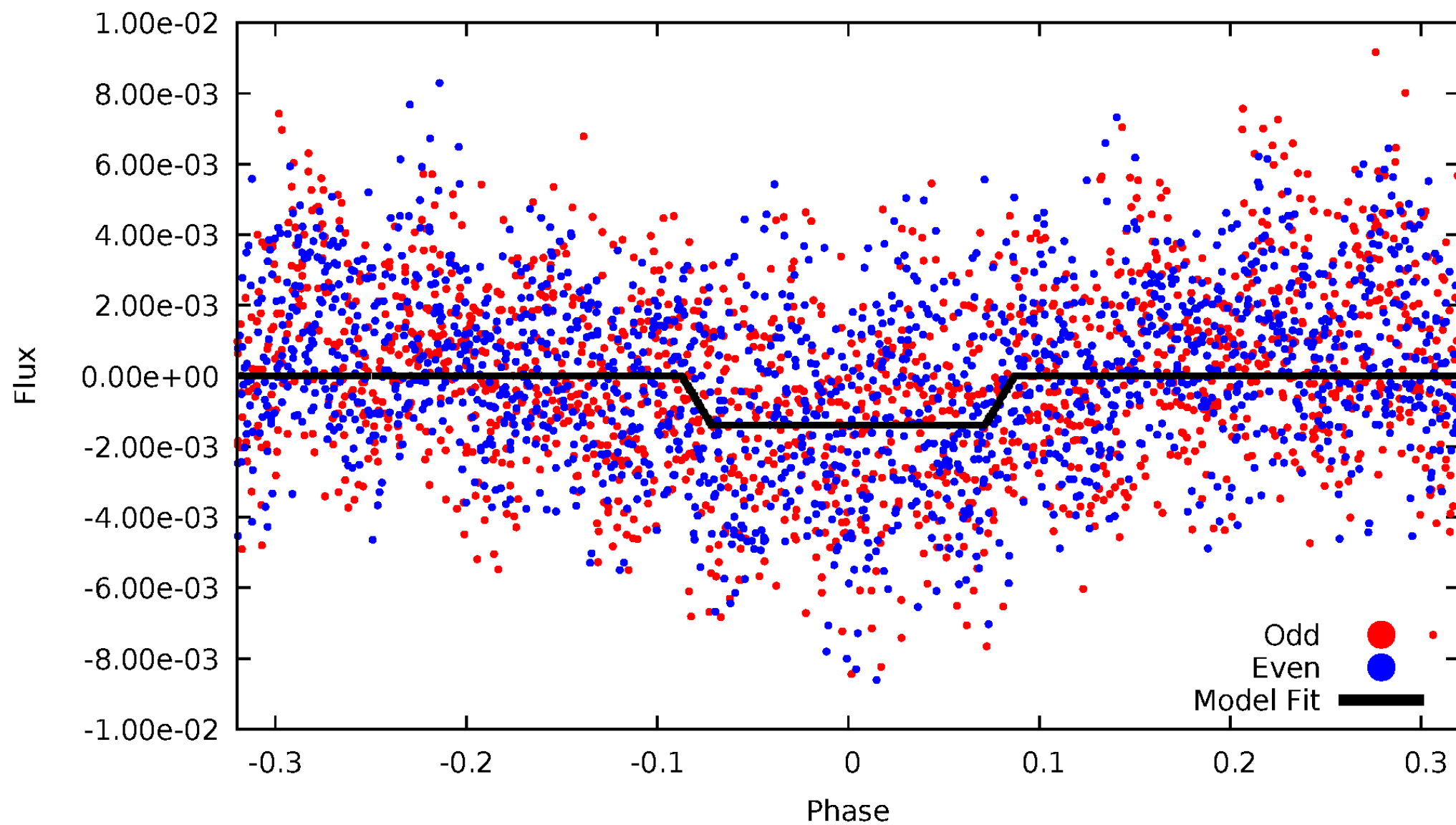
DV Odd/Even

TCE 005702637-04



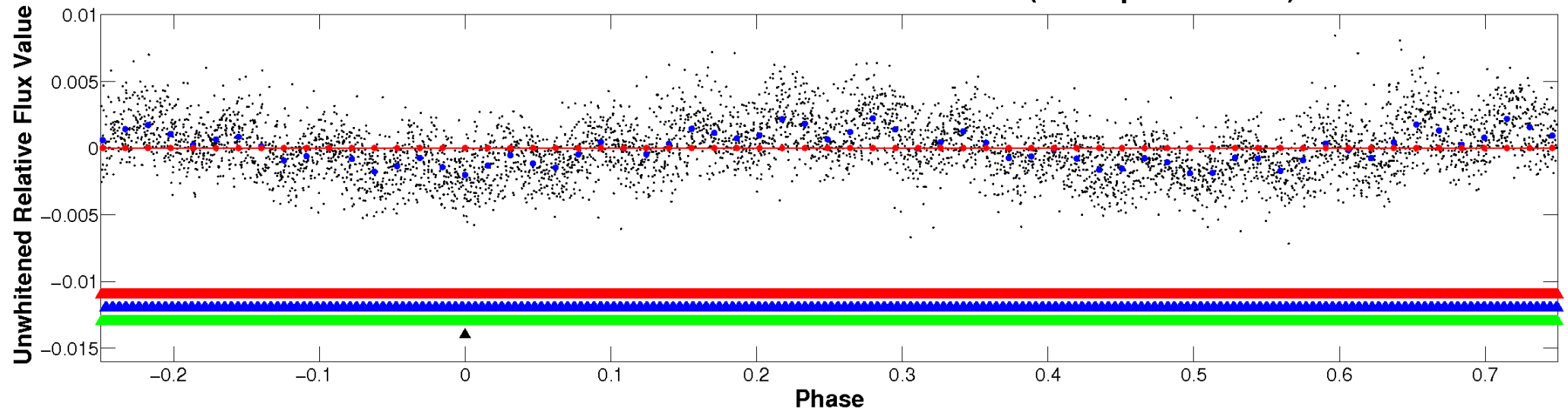
ALT Odd/Even

TCE 005702637-04

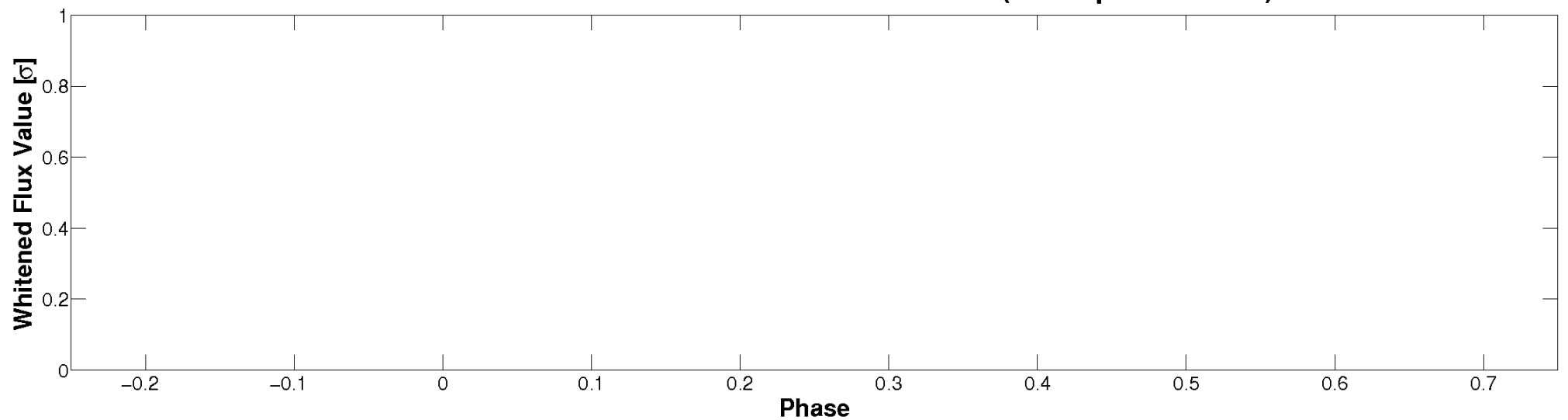


Non-Whitened Vs. Whitened Light Curve

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

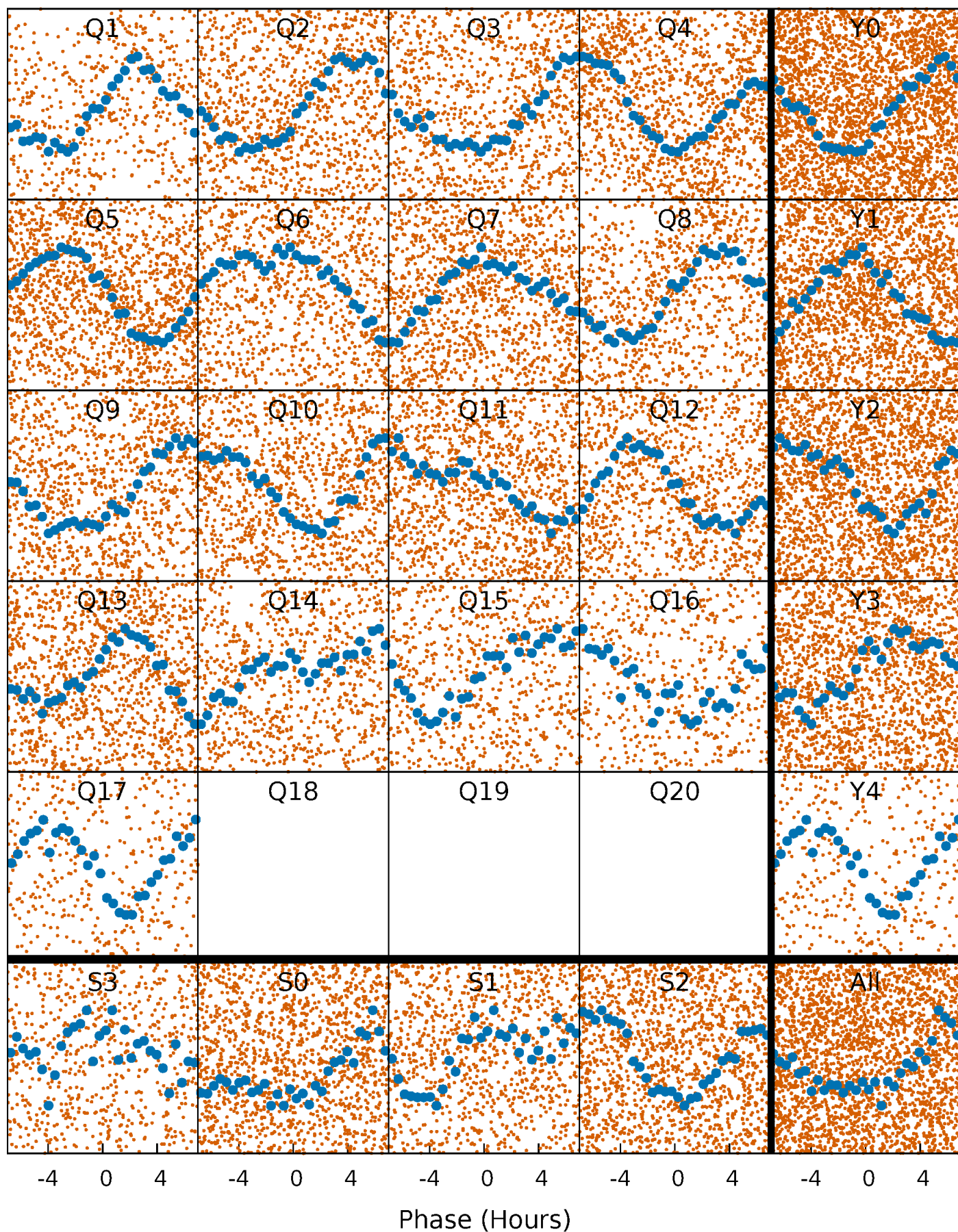


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



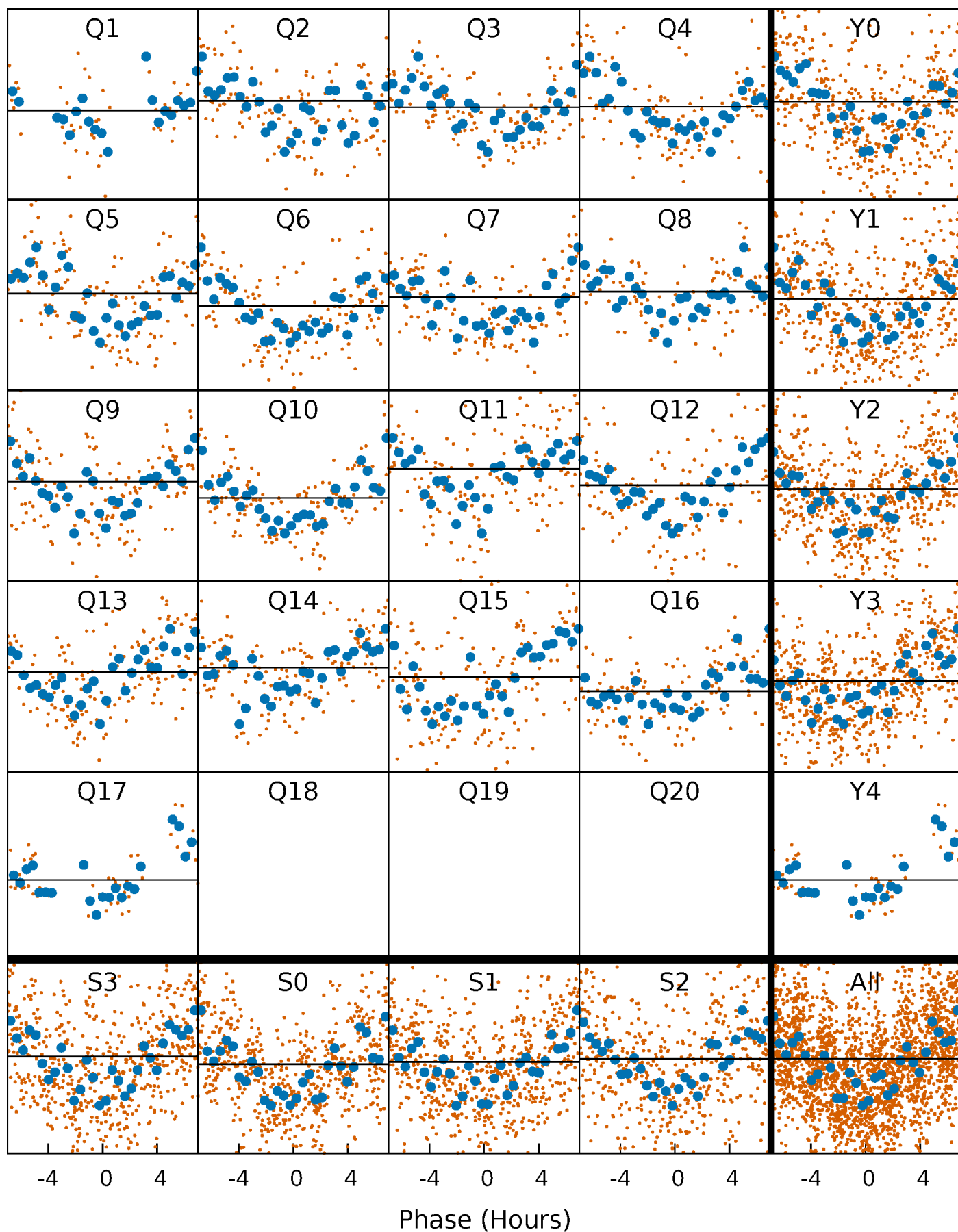
PDC Quarter-Phased Transit Curves

TCE 005702637-04 P= 1.314681 Days $T_0=132.777874$ (BKJD)



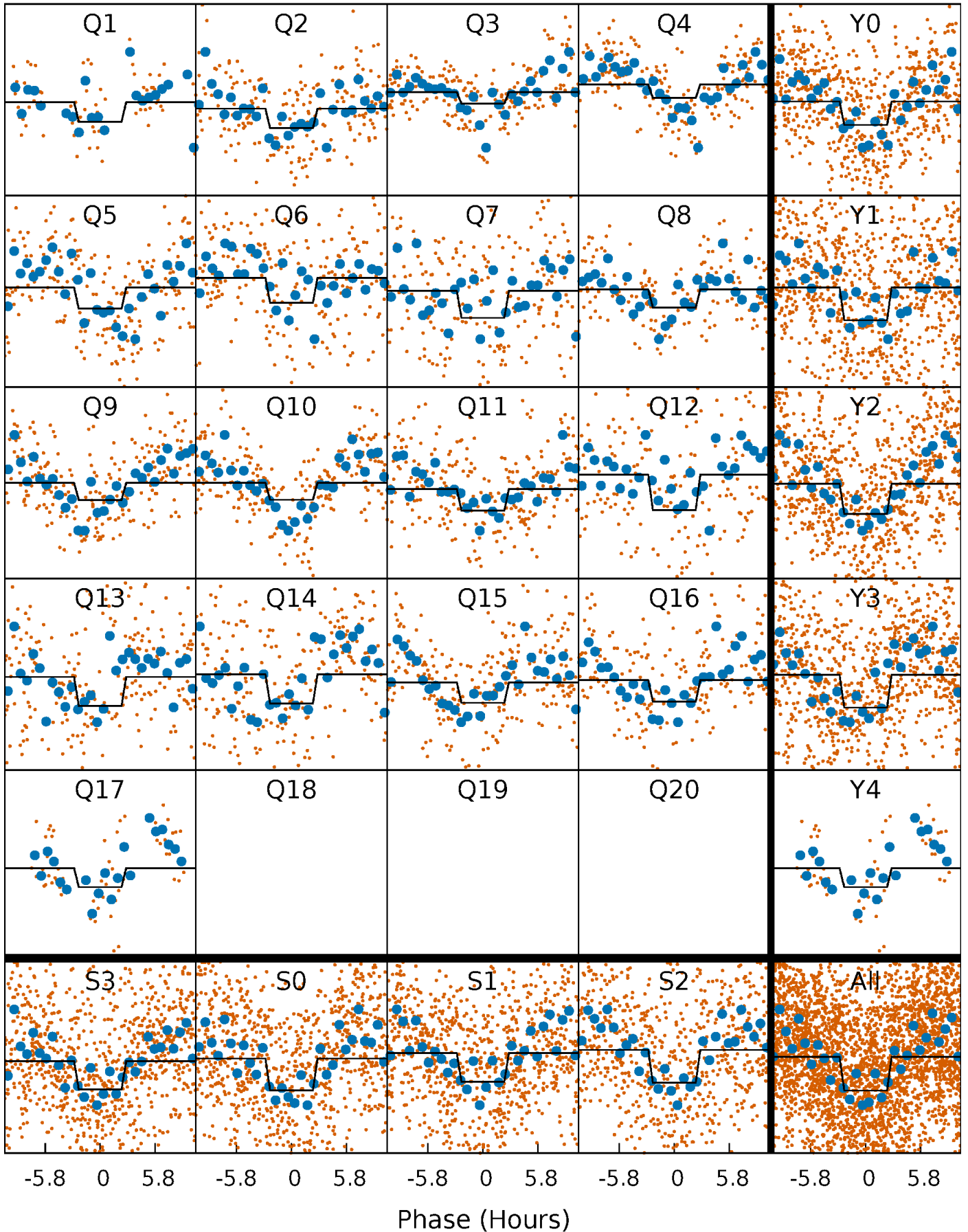
DV Quarter-Phased Transit Curves

TCE 005702637-04 P= 1.314681 Days $T_0=132.777874$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

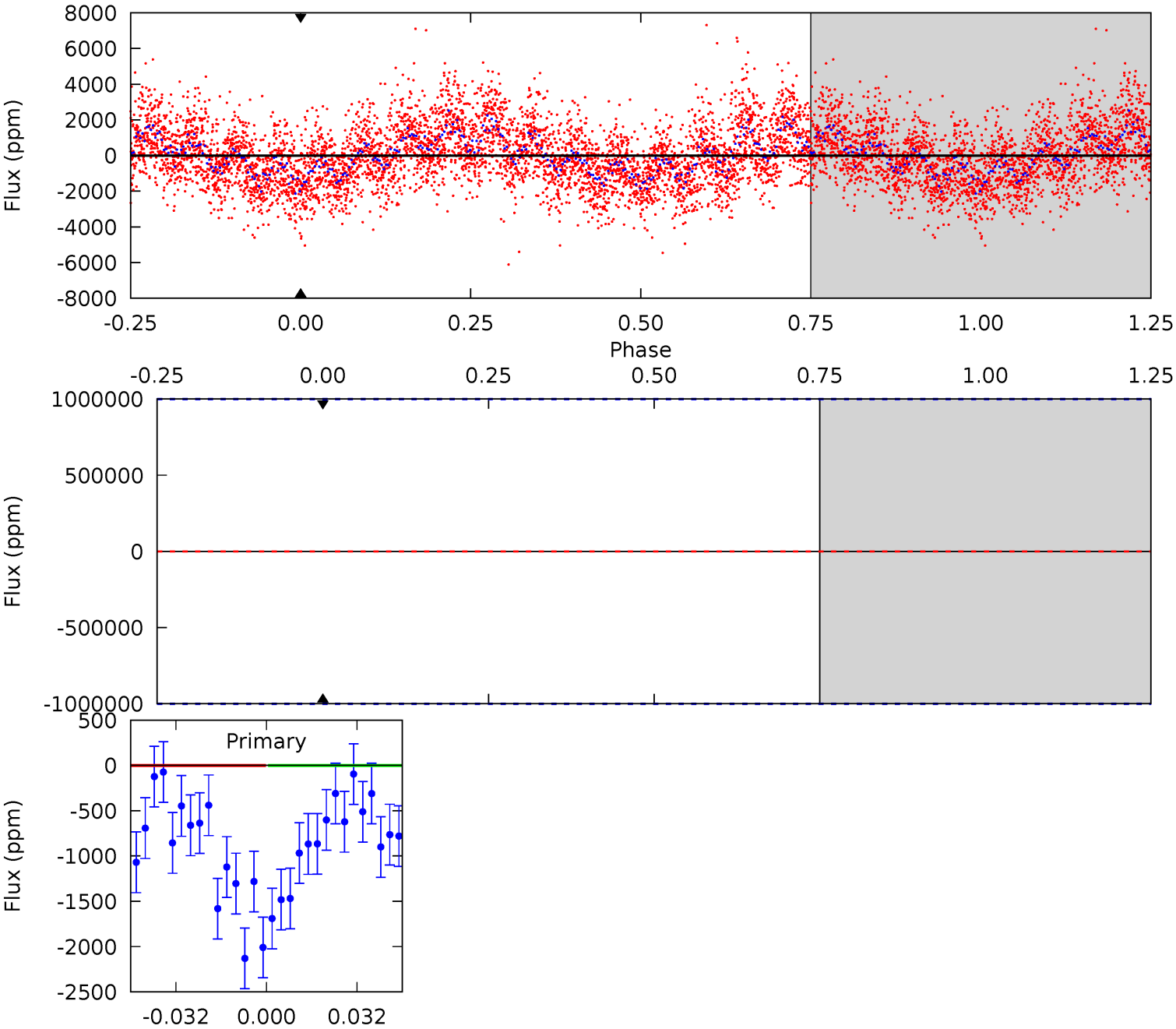
TCE 005702637-04 $P = 1.314681$ Days $T_0 = 132.777320$ (BKJD)



DV Model-Shift Uniqueness Test

005702637-04, P = 1.314681 Days, E = 131.463193 Days

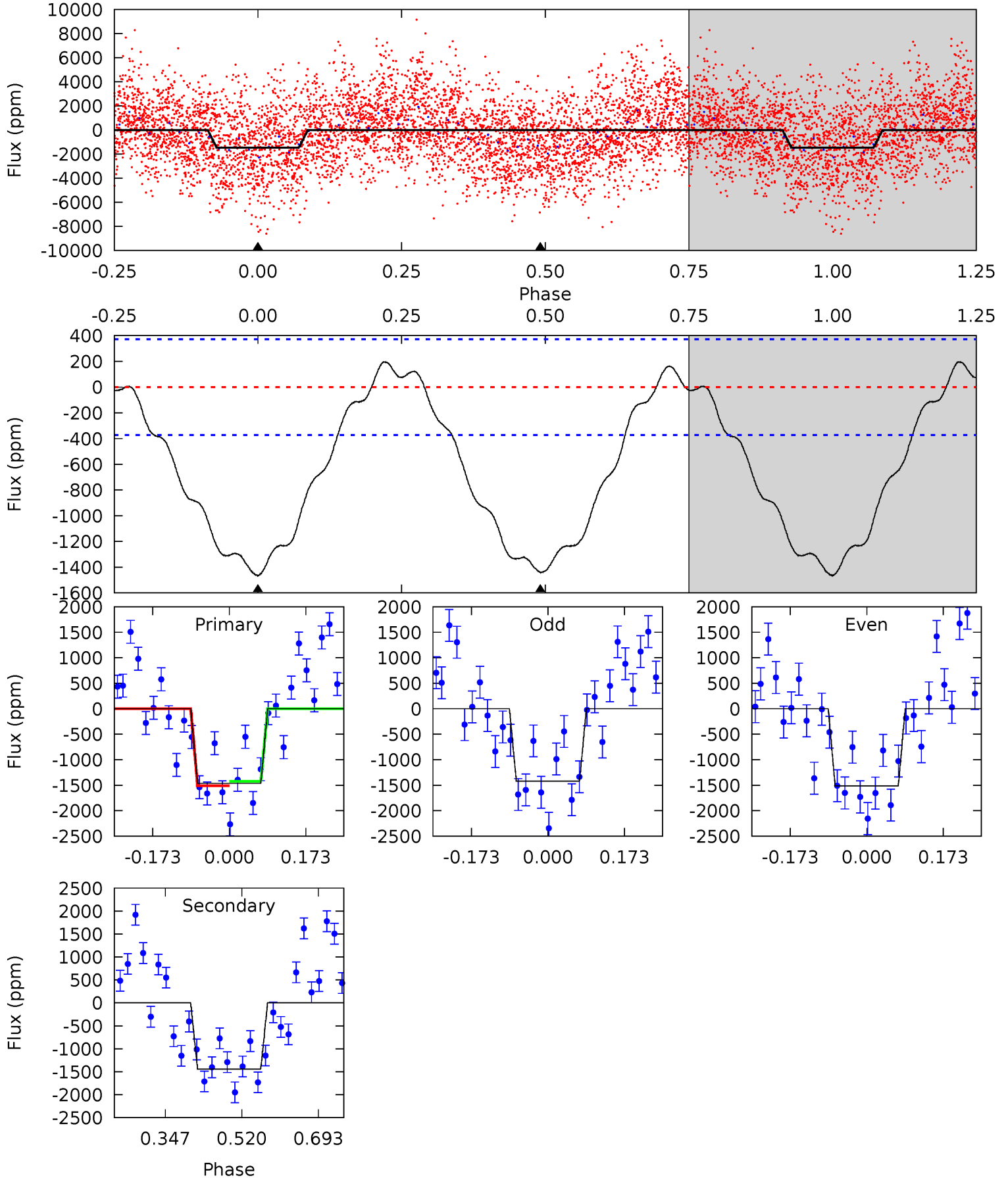
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005702637-04, P = 1.314681 Days, E = 131.462639 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	17.2	0	0	4.45	1.36	1.75	17.5	17.5	17.2	17.2	0.56	1.01	0.12	0.54



Stellar Parameters For KIC 005702637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7057^{+166}_{-270}	$4.251^{+0.070}_{-0.210}$	$0.000^{+0.200}_{-0.350}$	$1.482^{+0.501}_{-0.215}$	$1.426^{+0.216}_{-0.195}$	$0.617^{+0.239}_{-0.328}$
	+2%/-4%	+2%/-5%	+inf%/-inf%	+34%/-15%	+15%/-14%	+39%/-53%
Source	PHO1	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 005702637-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$11.81^{+13.59}_{-7.81}$	3306^{+260}_{-171}	4103^{+34903}_{-36407}	$1.718^{+501.276}_{-430.063}$
Alt.	-1441 ± 84	$14.27^{+14.03}_{-9.64}$	3313^{+250}_{-180}	4731^{+3573}_{-1296}	$2.708^{+21.621}_{-2.007}$

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 $A_{obs} \gg 1.0$

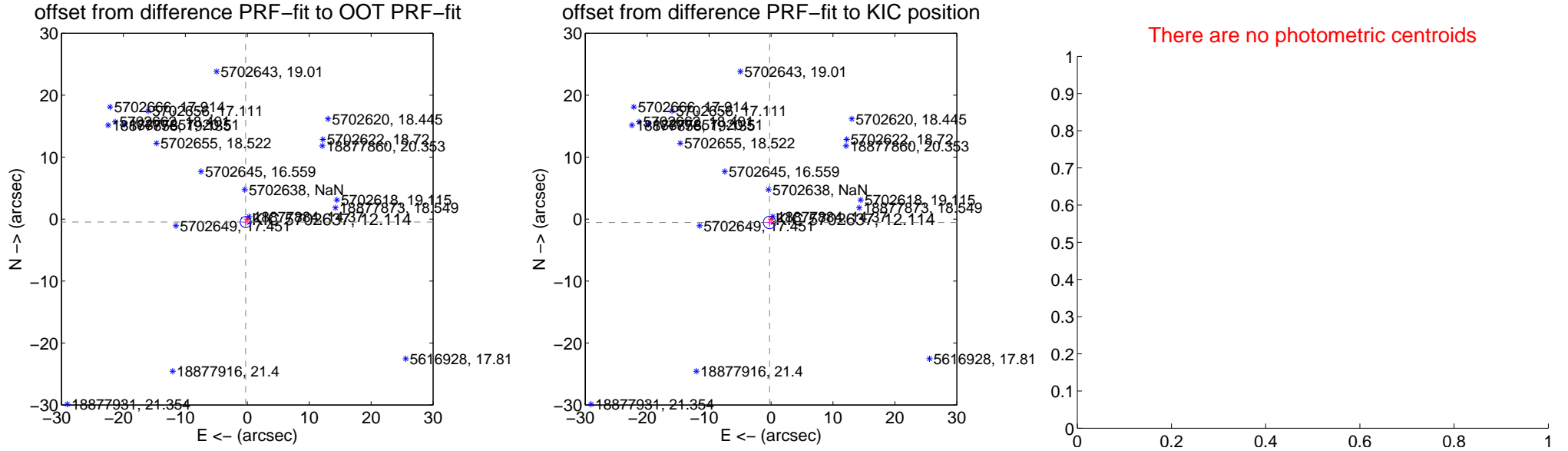
DV Centroid Data

Supplemental centroid analysis for 005702637-04. Kepler magnitude: 12.11. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

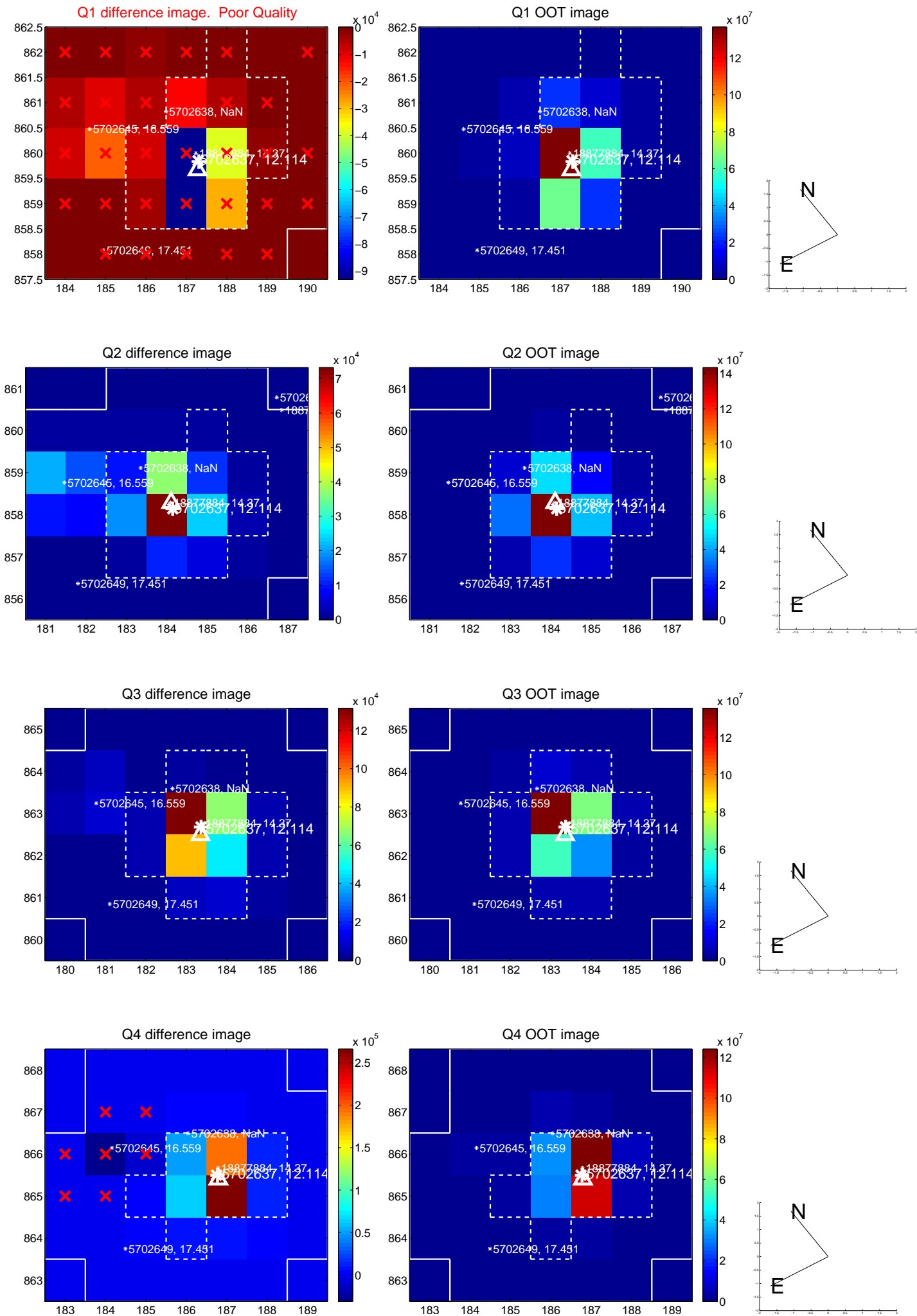
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.546 ± 0.297	1.84	0.259 ± 0.473	-0.480 ± 0.545
PRF-fit source offset from KIC position	0.594 ± 0.334	1.78	0.241 ± 0.488	-0.543 ± 0.546
photometric centroid source offset	—	—	—	—

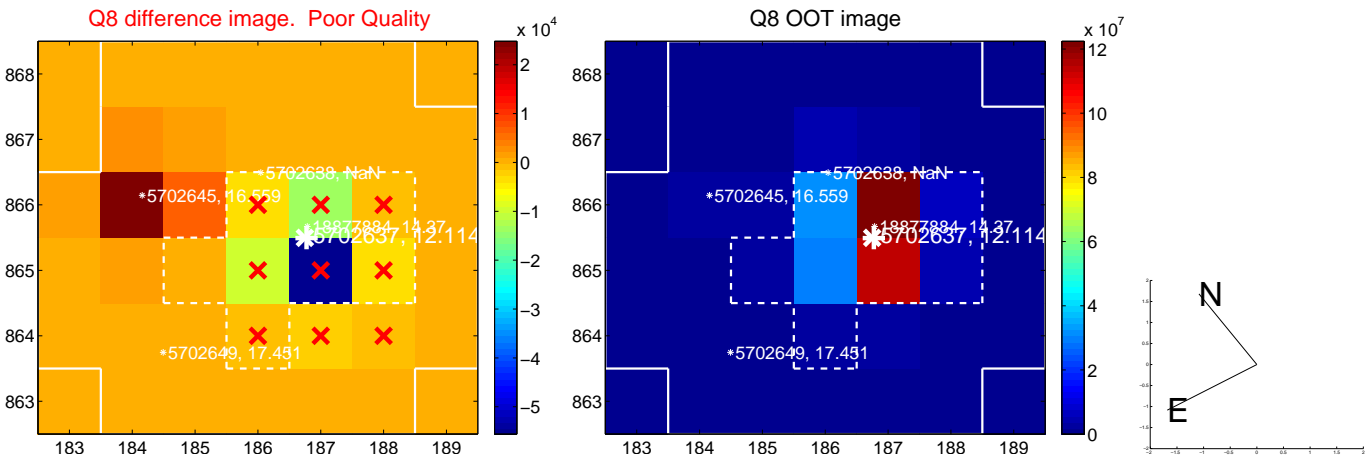
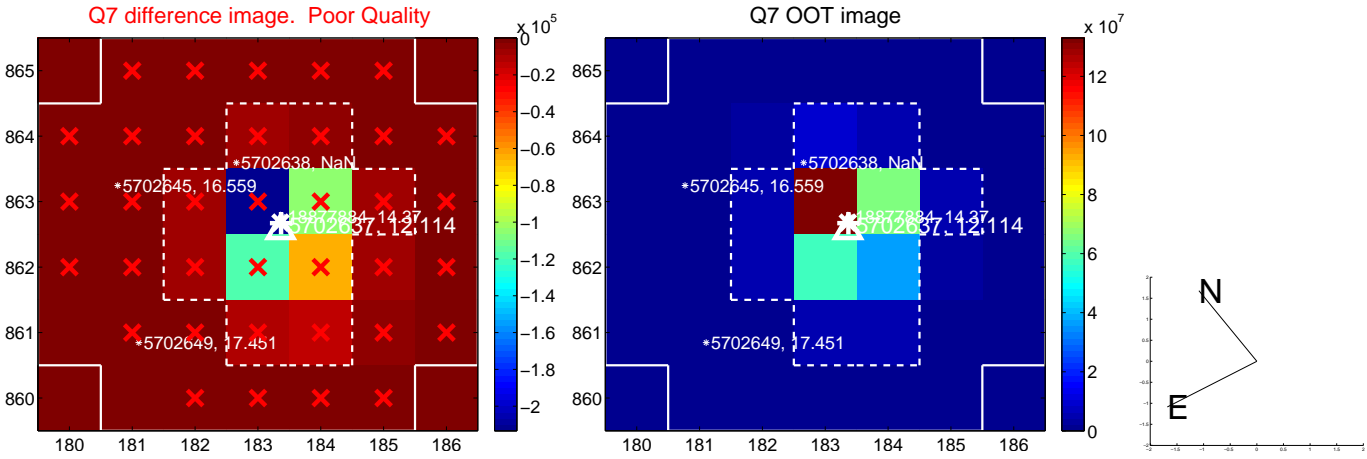
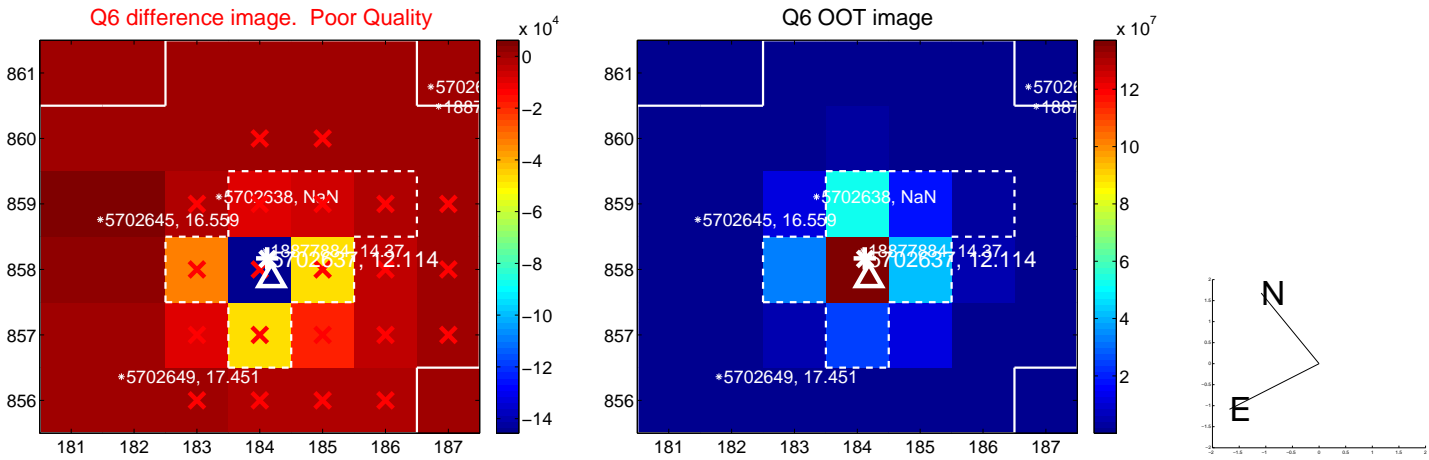
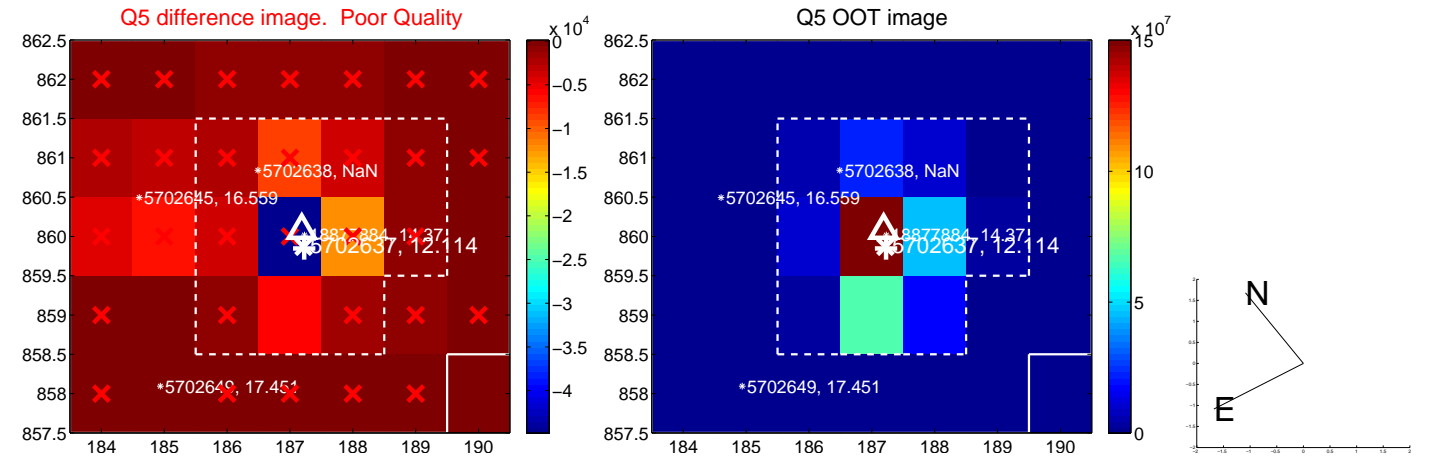


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

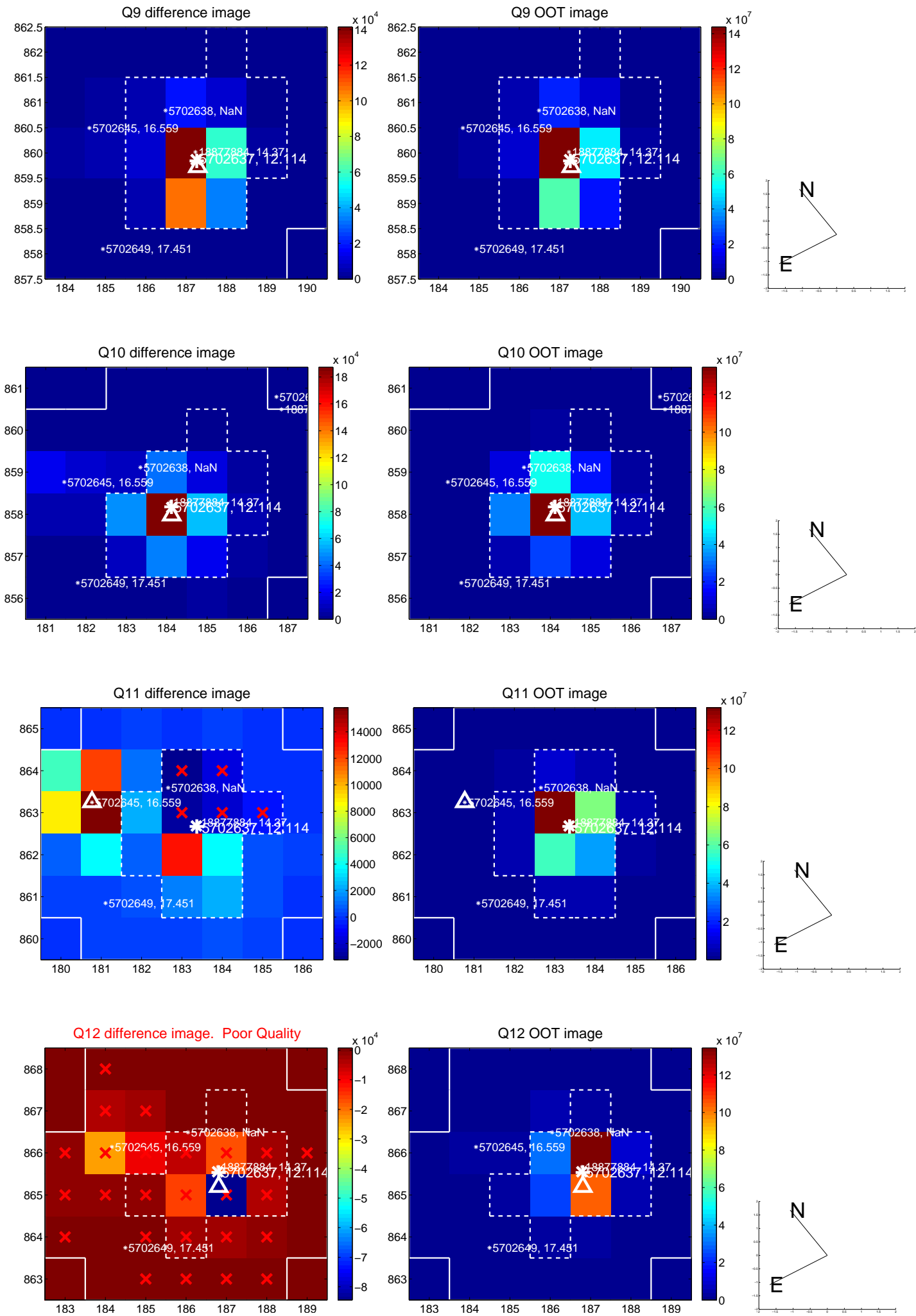
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



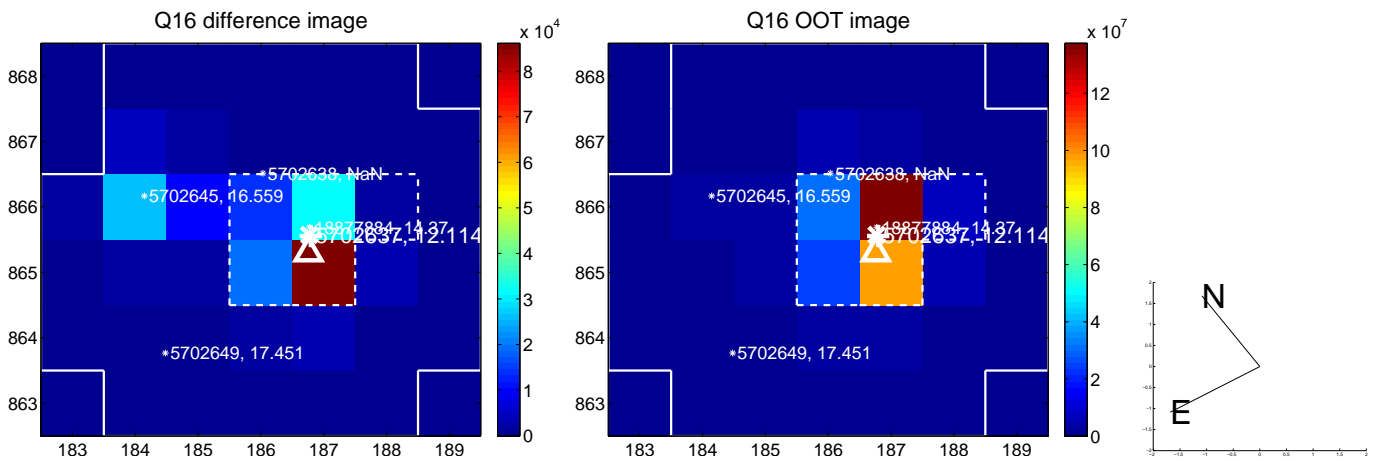
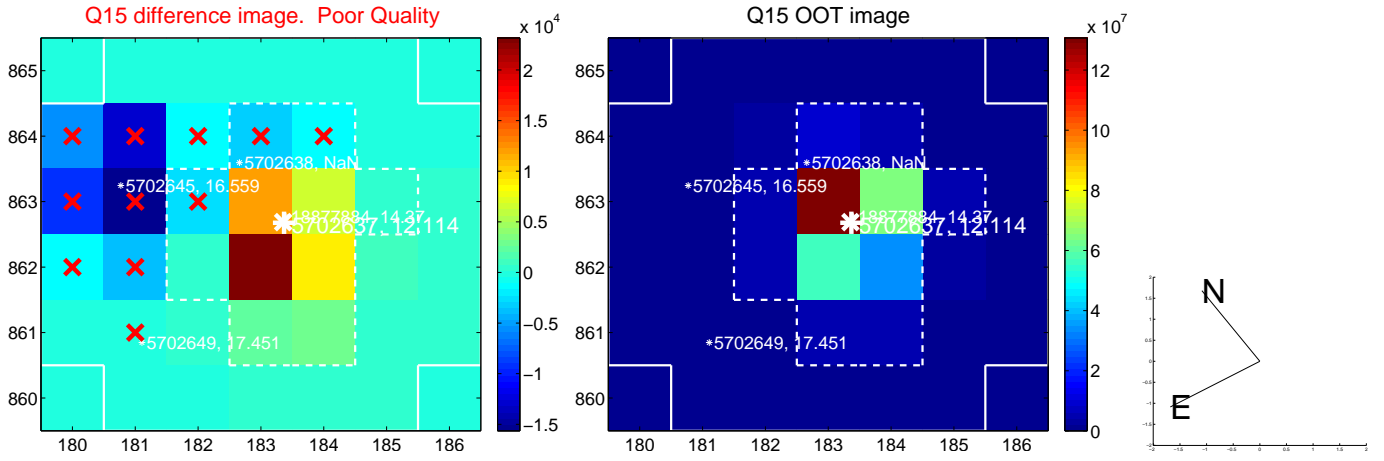
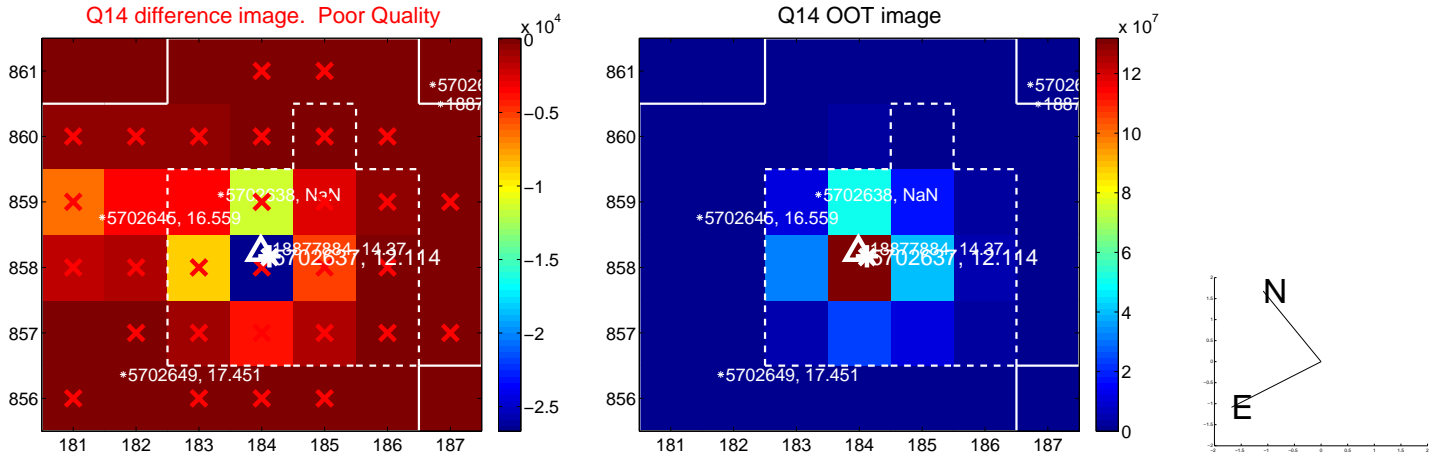
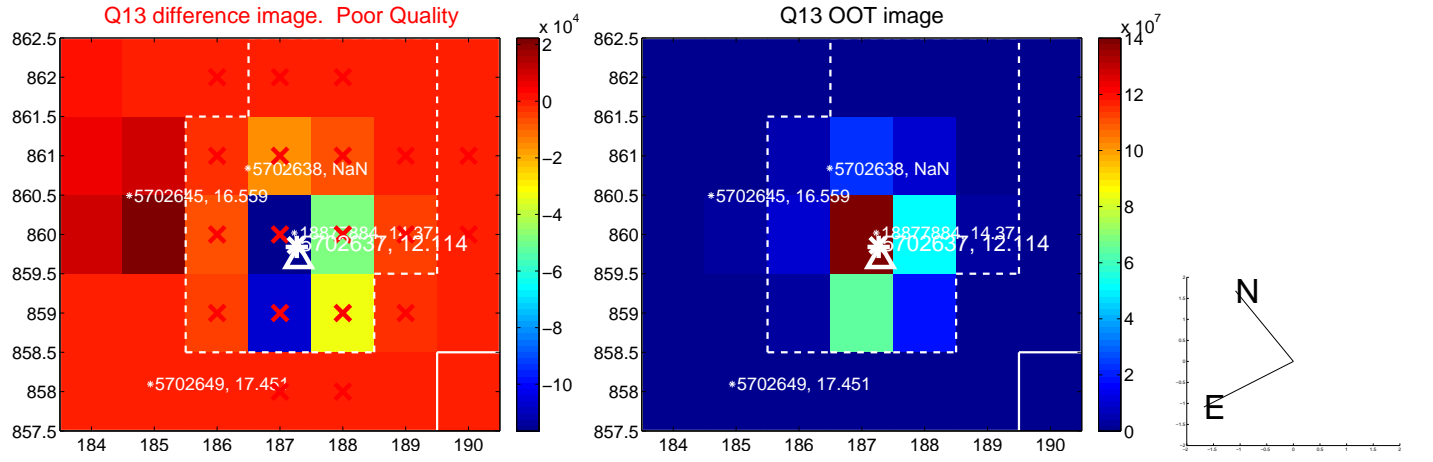
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



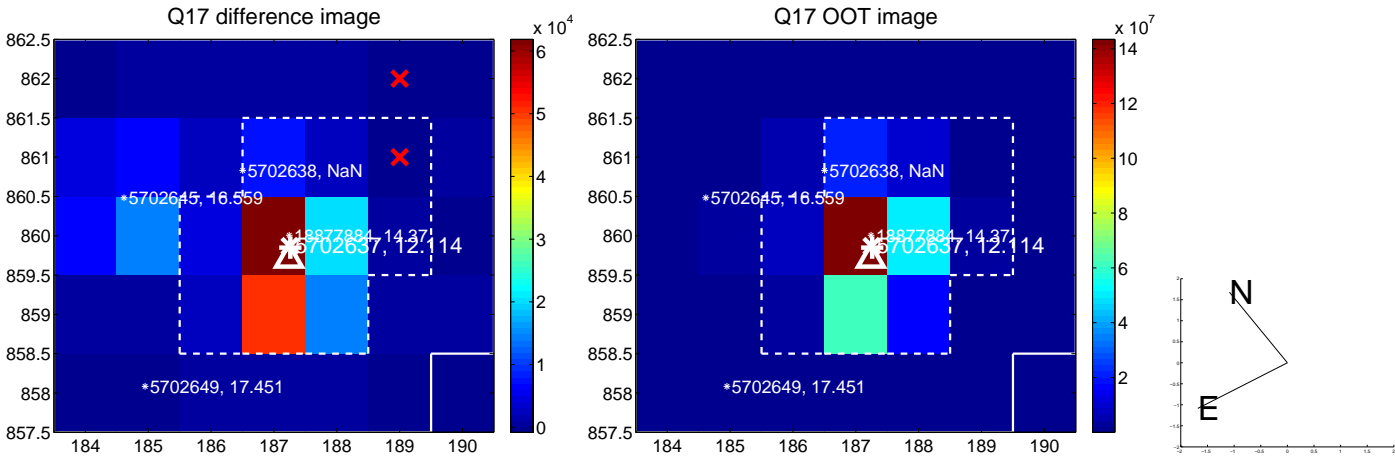
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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

Declination

